

*Dup*

# **college** **AND UNIVERSITY** **business**

**OCTOBER 1957**

***To Determine Teaching Load***

***Evaluating Student Labor Performance***

***Collection Policies in Small Colleges***

***Designing a Natural Cooling System***

***Food Service Festivities***



BOOKSTORE, UNIVERSITY OF WYOMING, LARAMIE (page 52)

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AMONG THE AUTHORS: J. Marlowe Slater, assistant to the president of Blackburn College, reports in this issue on an evaluation plan of student labor. Experienced in campus work programs at the College of the Ozarks as well as at Blackburn, Mr. Slater is now serving as president of the Illinois Guidance and Personnel Association. Warren C. Ramshaw, assistant to the director of the Illini Union and the housing division of the University of Illinois, summarizes procedures followed in determining housing needs of graduate students. He served as executive secretary of the Sigma Chi Foundation before accepting his present appointment in 1954. Richard J. Lichtenfelt, director of the union building and residence hall food service at Central Michigan College of Education, describes holiday festivities conducted in the residence halls as a means of maintaining interest in college food service. He was on the staff of Michigan Normal before accepting his present position in 1948.

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## QUESTIONS AND ANSWERS

### Screening Students

Question: Can state legislatures be educated to the problems involved in selection of candidates so that they will acquiesce to the use of screening techniques?—B.K., Iowa.

ANSWER: The selection of candidates for admission to publicly controlled colleges and universities always has been somewhat difficult and may become more so as demands for higher education increase during the next decade. In a number of states, high school graduates within the state are admitted to publicly controlled colleges and universities with little reference to the ability of the candidate to do collegiate work. While orientation tests or high school grades are not infallible as a means of predicting success in college, they have been very useful. Appropriate screening techniques make more education available for those who should have such opportunities, serve to eliminate unwise expenditure of public funds, and also may avoid for some students the emotional problems that accompany failure.

Our colleges and universities have the responsibility of providing higher education. They also should have the responsibility of determining who is qualified.—RAYMOND W. KETTLER, controller, Regents of the University of California.

### Student Organization

Question: We are in the process of reorganizing our student organization funds. Do most universities charge a fee for audit and supervision of these accounts? If so, what is the average service charge and how is it determined by the majority of the institutions?—L.S., Ark.

ANSWER: Up to this time a survey of all universities has not been made; but based on a limited polling of universities in the East, most universities do not charge a fee for audit and supervision of student organization funds. In some instances where the student organization manages its own funds in its own checking account, an audit by a certified public accounting firm is required; the fee for this audit is sometimes charged to the student organization fund. In still other instances, a centralized accounting, reporting and auditing unit allocates its services on an estimated cost basis. At this time there appears to be strong support for the basis of not charging student organization funds for the cost

of supervisors, advisers or moderators; the college wherein the organization is located should absorb this expense as a part of the cost of educating the students.

It is believed that any averaging of service charges of those institutions which do charge would be meaningless inasmuch as apparently the only basis heretofore disclosed has been that of "recovering cost." This cost naturally would be variable depending on the type, size, complexity and so forth of the transactions of the various student organization funds served.—GEORGE F. BAUGHMAN, vice president and treasurer, New York University.

### Development Program

Question: How should the typical development program be administered within the academic framework?—M.C., Calif.

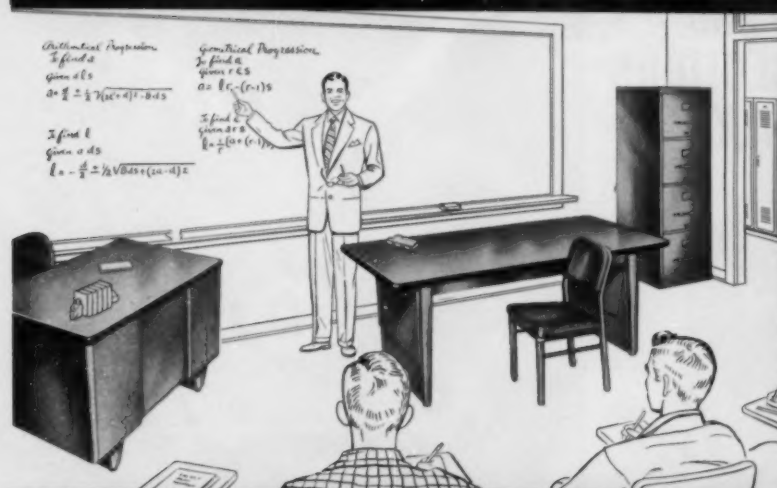
ANSWER: It is difficult to generalize without studying the specific situation in a given institution.

All of us are familiar with the varying degrees of administrative responsibilities handled by the faculty in one college versus another. First, faculty committees certainly should sit down with those responsible for the development program and help to determine academic needs, such as individual classroom and laboratory buildings, scholarships, professorships and loan funds.

Second, in setting forth these needs the faculty participants should aid in the establishment of priorities of importance as well as reasonable estimates of the amount of money required for each of the determined needs. Third, faculty representatives working with key development personnel should establish the organization for the solicitation of contributions to the program from faculty members themselves as well as aiding in the contact and follow-up work. Many faculty members are well acquainted with important alumni and outstanding civic leaders in the community. Frequently knowledge of this acquaintance with such individuals would be most important to those responsible for fund raising, especially if the faculty persons in question were willing to contact such individuals with whom they were acquainted for contributions.—W. O. NICHOLLS, treasurer, American University.

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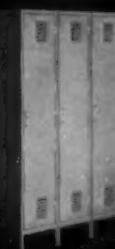


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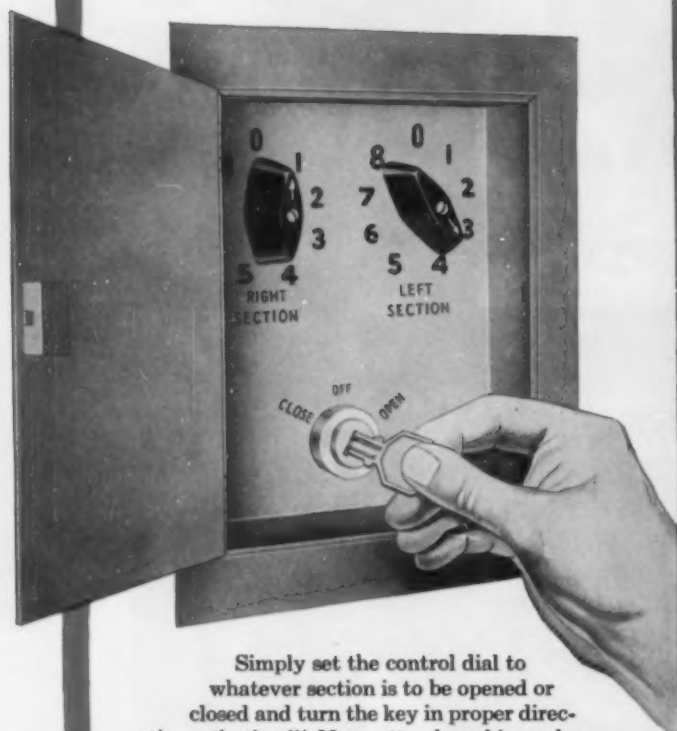


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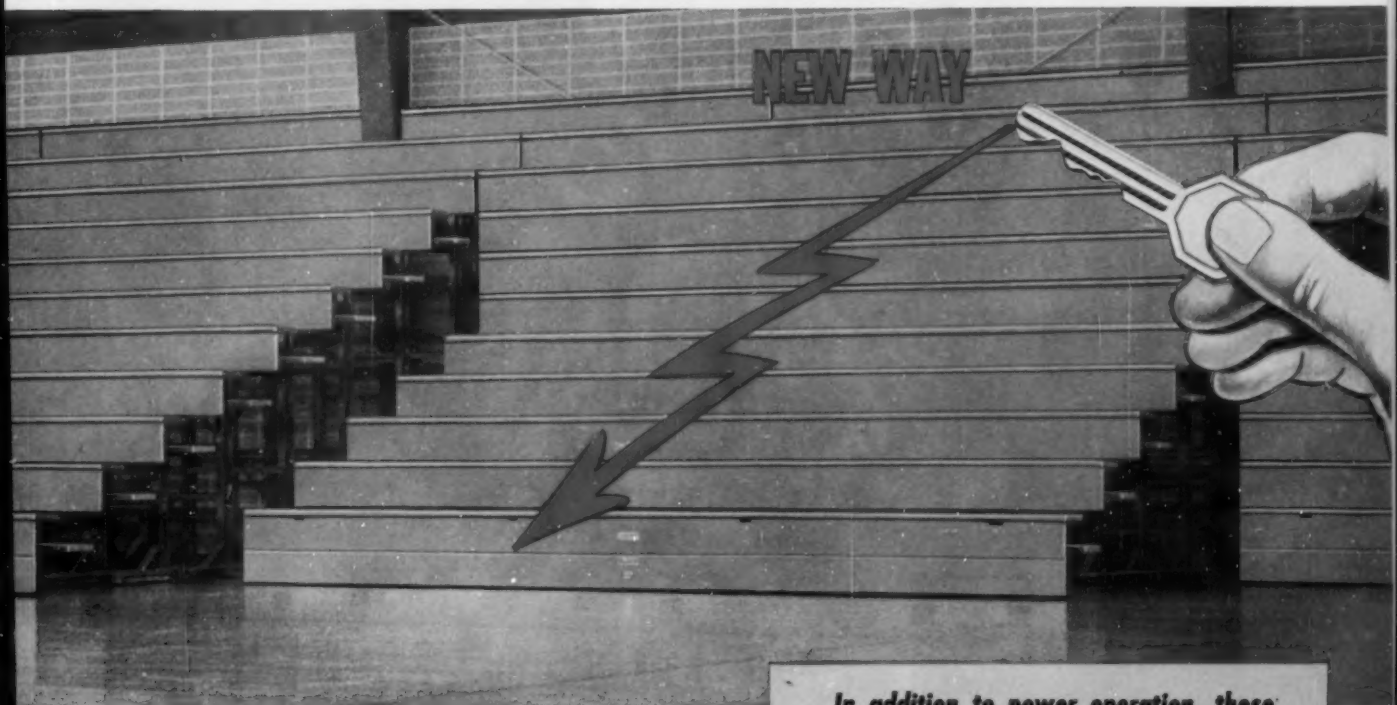
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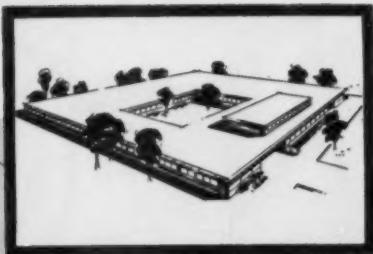


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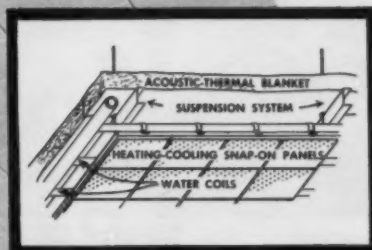
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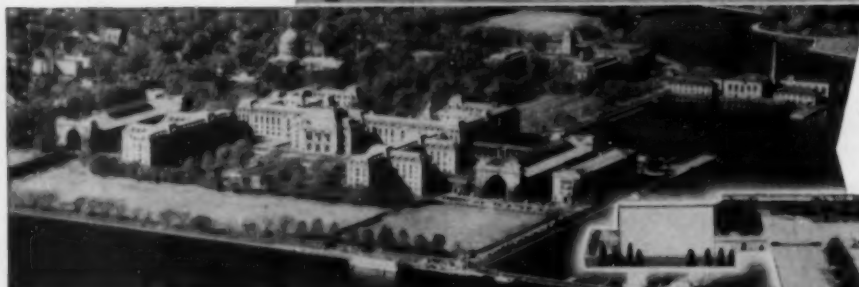
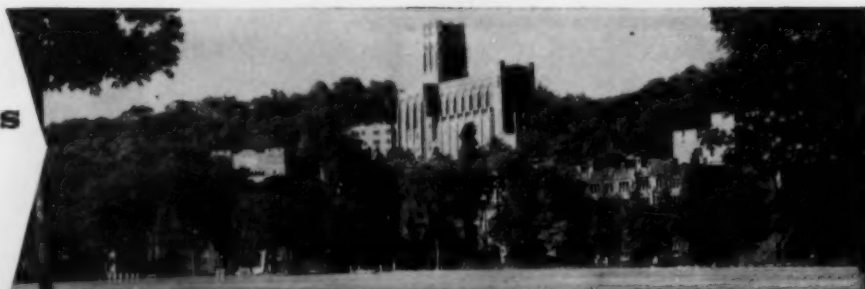
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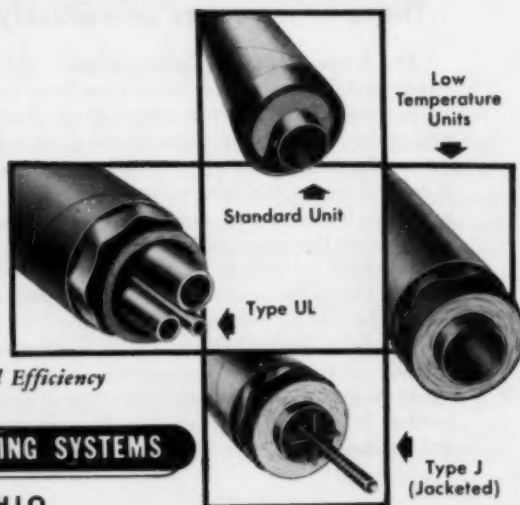
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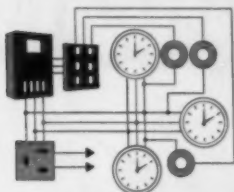
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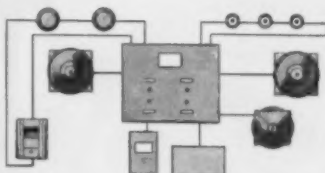
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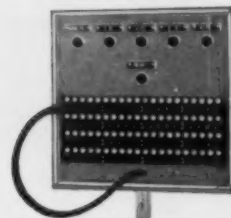
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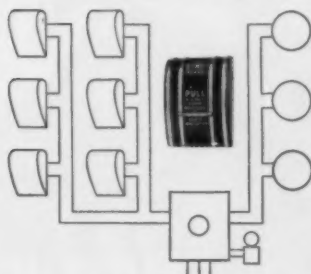
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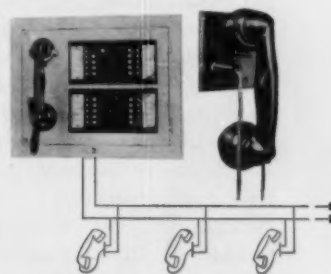
Edwards offers a "hug-the-wall" look plus absolute dependability of performance in a new "foolproof" single action pull lever station. Can be combined with the latest type of fire detectors to give automatic 24 hour protection.

#### EDWARDS SIGNAL DEVICES



For every signaling use, Edwards complete line of bells, horns, and buzzers provide the right tone and intensity to overcome particular noise conditions or requirements. The "Adaptabel", typical of Edwards equipment simplicity, has no moving contacts or armatures, compensates automatically for plunger wear.

#### EDWARDS INTERCOMMUNICATION SYSTEMS



Edwards new Intercommunication System can be combined with an Edwards Program system to operate without a switchboard, providing privacy and flexibility with an unusually inexpensive installation that is virtually maintenance-free.

# EDWARDS

All Edwards equipment is guaranteed unconditionally, without time limit, against defects of material or workmanship.

*Maybe a four-poster  
is going a little too far, but...*

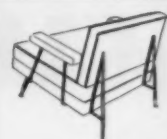
... who says her "home away from home" has to look like a barracks? Sure, dormitory furniture ought to be functional and all that, but these are *living quarters* we're talking about, for *people*, fellows and girls who've left warm, friendly places for parts and customs unknown. Seems to us that rooms at school might be furnished more *personally*, with Troy's Contract-Americana, for instance. It's the kind of furniture you'd be pleased to have in your own home and yet it has all the "institutional" virtues — low initial cost, exceptional durability and ease of maintenance. We'd be happy to send you our Contract-Americana folder and price list. No obligation, of course.



6001 CHEST



6005 DRESSER-MIR



6205 LOUNGE CHAIR

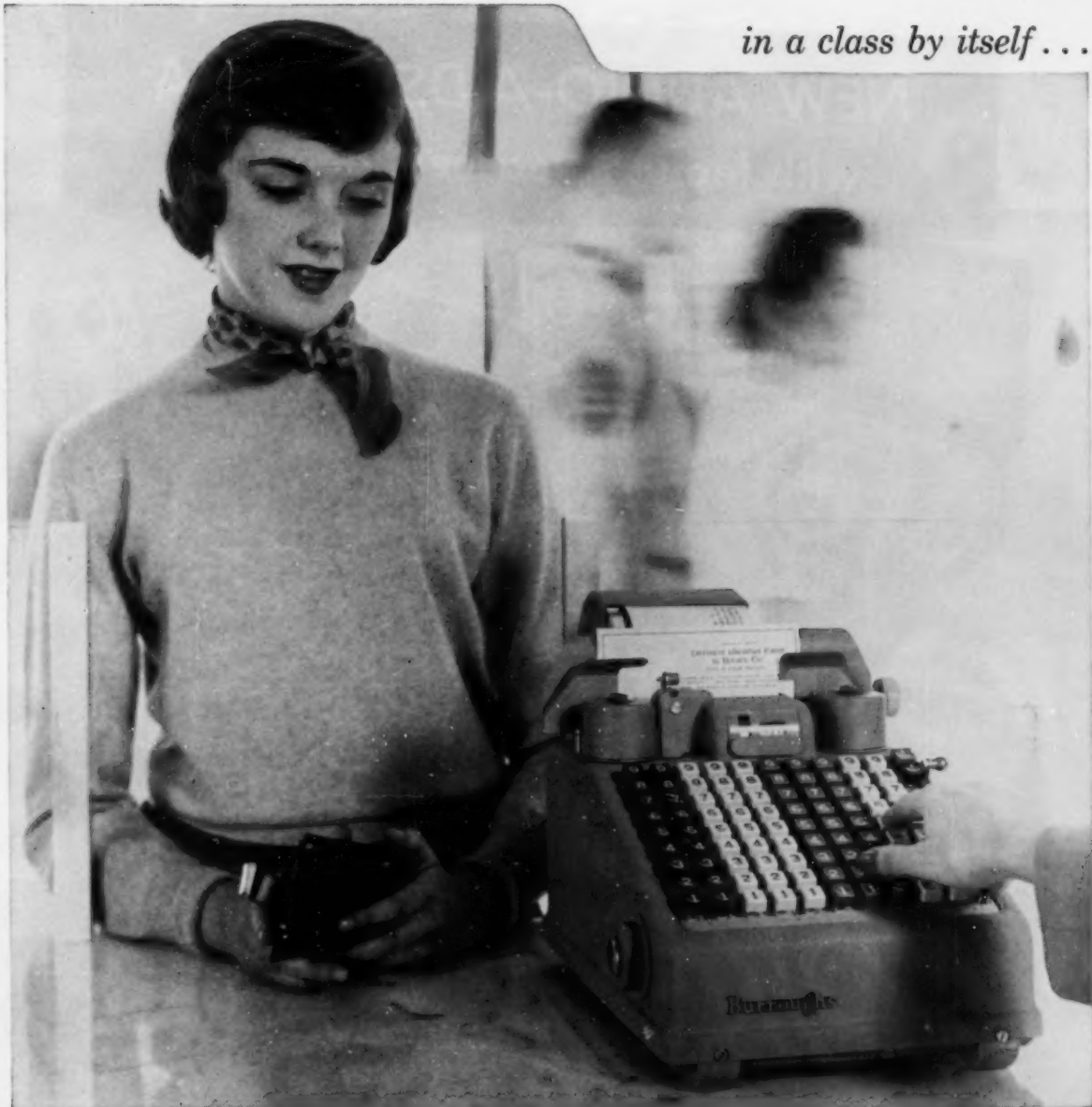
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makers of fine outdoor furniture and umbrellas for over half a century

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*in a class by itself...*



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**gives you foolproof cash control  
of every cent you collect**

Burroughs Receipting and Validating Machine protects your students, cashier and school with a modern, tamperproof cash control system.

And it's so simple! When the cashier receives a payment, she inserts the receipt form and indexes the amount. She touches the motor bar, and the machine *automatically* prints amount,

transaction number, date and cashier's symbol and marks the bill "PD." She again presses *one* key and the Burroughs Receipting and Validating Machine automatically produces an identical receipt for your records. This built-in safeguard enforces recording of all information on the locked-in audit tape.

Do you want tighter cash control? Call our nearest branch office for a demonstration. Or write Burroughs Corporation, Detroit 32, Michigan.

"Burroughs"—Reg. TM.



# NEW AUDIO-AIDS BY RCA

with features teachers demand



(Type  
EDR-2)

- "Tri-Coustic" hi-fi speaker system gives excellent sound reproduction, thrilling realism.
- Uses 3 intermatched quality speakers.
- 4-speeds.

RCA  
"SCHOLASTIC"  
HIGH FIDELITY  
RECORD PLAYER



(Type  
EDT-1)

- Excellent frequency response.
- Push-button controls.
- "Tri-Coustic" speaker system.
- 2-speed operation.

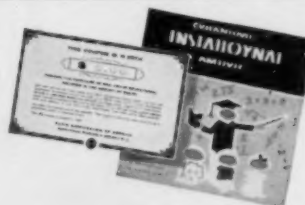
RCA "SCHOLASTIC"  
HIGH FIDELITY  
TAPE RECORDER



(Type  
EDR-1)

- Astonishing value in a low-cost player.
- Room-filling, two-speaker system.
- 4-speeds.
- "Ruggedized" construction.

RCA "SCHOLASTIC"  
PORTABLE RECORD PLAYER



## FREE BONUS OFFER TO EDUCATORS

With each of these RCA Record Players, you receive a free Sampler Record of selections from RCA's Educational Record Collection. *Plus* a special Bonus Certificate entitling you to purchase RCA Educational Records at  $\frac{1}{2}$  off nationally advertised prices. Ask your RCA Audio-Visual Dealer for details.

For complete descriptive information on RCA "Scholastic" aids to educators, and details on Record Bonus offer, write the address below.

These fine new instruments of the RCA "Scholastic" line have been designed especially for schools. They perform beautifully . . . bring realistic sound to the classroom . . . and yet are simple enough for children to operate and rugged enough for constant school use. All "Scholastic" Tape Recorders and Record Players have tough, scuff-resistant cases, reinforced speaker grilles. Record Player design includes guarded tone arm for protection while carrying.

"Scholastic" Tape Recorder has push-button controls, voice-music switch, footage counter, output for external speaker, doubles as a PA System.

Your RCA Audio-Visual Dealer will be delighted to see you or call on you about these great new RCA aids to education. He's the dealer who supplies you with RCA 16mm Projectors . . . and his number is in your Classified Directory under "Motion Picture Equipment and Supplies."



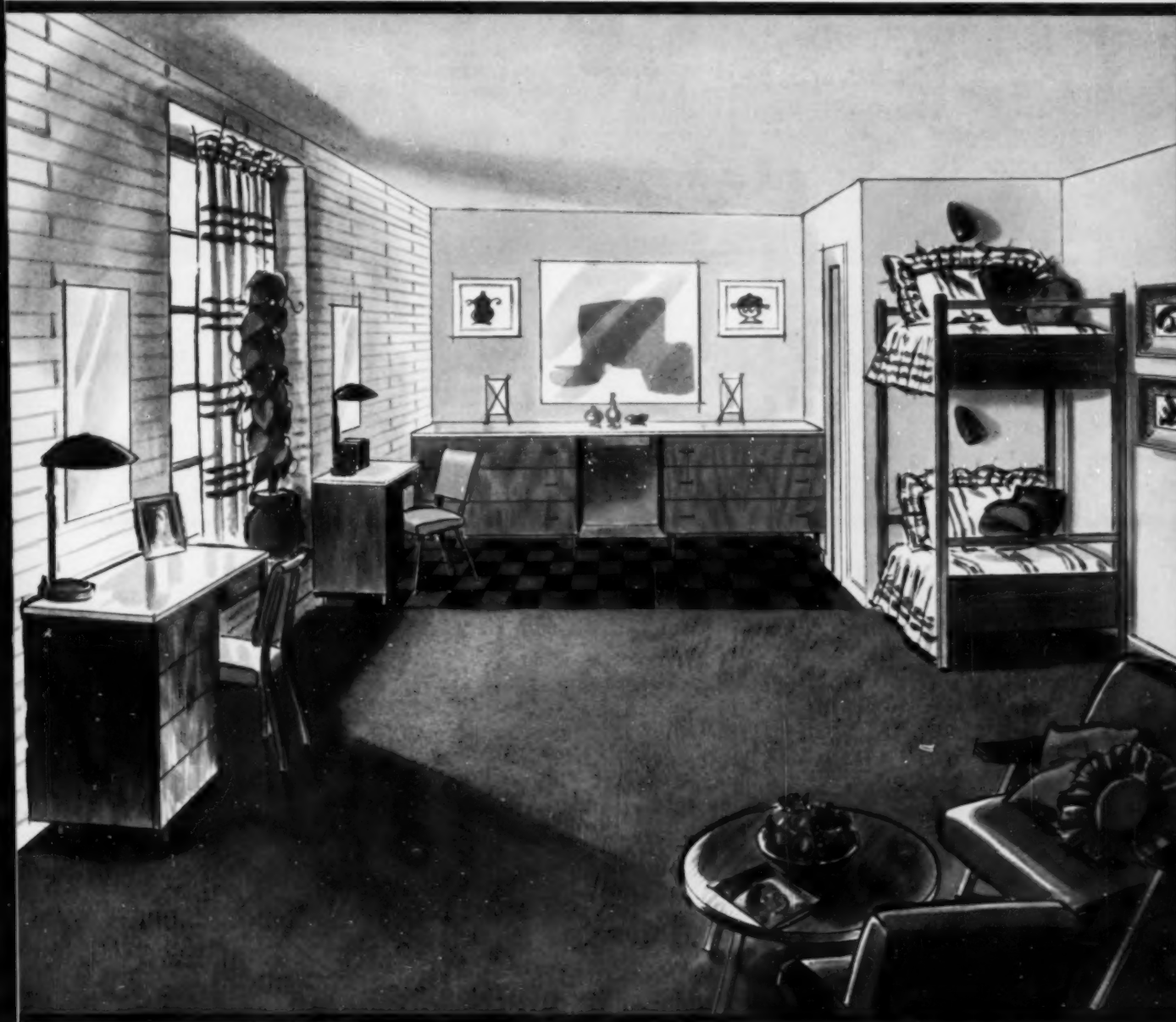
**RADIO CORPORATION of AMERICA**

EDUCATIONAL SERVICES

CAMDEN, N. J.

# WOODRIDGE . . . by *Royal*

The World's most advanced design in Dormitory Furniture . . .  
*combining the natural beauty of wood with the strength of steel*



## WOODRIDGE . . . by *Royal*

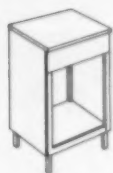
—for restful and relaxing dormitories and married students' apartments to create a gracious homelike atmosphere conducive to both study and relaxation. The natural warmth of wood handsomely wedded to a steel "skyscraper" frame of unmatched durability and combined with a versatile color range of virtually indestructible plastic tops. Designed in modular units to offer unlimited flexibility in function and arrangement. A refreshing concept of construction functionally designed to make "WOODRIDGE . . . by Royal," truly America's finest line of dormitory furniture.

# Royal combines the beauty of wood—the strength of steel

## FOR DORMITORY ROOMS/FOR MARRIED STUDENTS' QUARTERS

Now—in "WOODRIDGE . . . by Royal," Royal has achieved the ultimate in pleasing design, combining the beauty of natural wood with the strength and durability of steel. WOODRIDGE dressers, desks, chests and night tables designed in Modular units can be arranged in a variety of attractive pieces together with a broad-selection of beds to offer limitless possibilities for every room requirement. Wardrobes and storage cabinets for built-in

purposes present even more suggestions for arrangements. Creates a gracious homelike atmosphere conducive to study and relaxation. The natural warmth of wood plus the strength and features of steel construction combine to make "WOODRIDGE . . . by Royal" the most pleasing and practical dormitory furniture available today for modern appearance, comfortable living. For any room, any setting, choose "WOODRIDGE... by Royal."



**No. 76—Night Table,** 16" x 16" x 26" high. Also No. 77—same but without drawer.



**No. 42—3-Drawer Dresser;** 30" x 18" x 30" high. Also No. 43—same except 36" x 18" x 30" high.



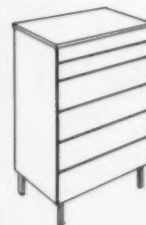
**No. 39—4-Drawer Dresser;** 30" x 18" x 37" high.



**No. 58—4-Drawer Chest;** 20" x 16" x 30" high.



**No. 52—6-Drawer Double Dresser;** 60" x 18" x 30" high. Also No. 53—same except 72" x 18" x 30" high.



**No. 44—6-Drawer Chest;** 30" x 18" x 46" high. Also No. 45—same except 36" x 18" x 46" high.

### Handsome, modern styling in

### RECEPTION ROOM FURNITURE

The charm and warmth of Woodridge styling has been captured with graceful simplicity in Royal's new reception furniture. The series, shown in photo to the right, includes Model 826-W Settee-for-Two, Model 827-W Settee-for-Three, and Model 825-W Club Chair. The settees are also available as sectional pieces with a separate center unit, right end unit and left end unit.

Close-to-the-floor functional design with spacious seating and back rests offer luxurious reception room comfort. Wall-saver rear leg design and self-locking floor glides prevent marring and scratching of floors and walls. Available in Satin-Chrome or Plastelle Enamel finish with either upholstered or hand-shaped solid walnut arm rests.



From left to right, Model 825-W Club Chair, Model 797 Occasional Table, Model 827-W Settee-for-Three, Model 826-W Settee-for-Two. Solid Walnut Arm rests shown, also available in upholstered arm rests.

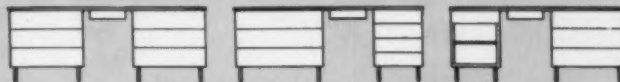




*Royal*

**COMBINATIONS FOR EVERY REQUIREMENT**

**MODULAR DESIGN** for truly functional units. Desks, chests, dressers, storage cabinets and wardrobes can be arranged in limitless combinations for conventional or "built-in" installations. Units can be combined to suit your requirements; giving you a custom installation at a production price.



**No. 54—Student Desk;**  
42" x 18" x 30" high.



**No. 48—3-Drawer  
Dresser Desk; 54" x  
18" x 30" high. Also  
No. 49— without  
knee hole drawer.**



**No. 56—Double Stu-  
dent Desk; 42" x 36"  
x 30". Knee hole  
drawer.**



**No. 46—4-Drawer  
Dresser Desk; 48" x  
18" x 30" high. Also  
No. 47— without  
knee hole drawer.**



**No. 50—3-Drawer  
Dresser Desk; 60" x  
18" x 30" high. Also  
No. 51— without  
knee hole drawer.**



**No. 37—Double Dresser  
Vanity; 3 drawer dress-  
ers — 30" x 18" x 30"  
high, Vanity — 25½"  
wide.**

**Dormitory and Guest Beds**

**For every room requirement**

Royal offers a complete line of comfortable and attractive dormitory, Hollywood and double bunk beds for every institutional use. Available in either Walnut or Birch finish.



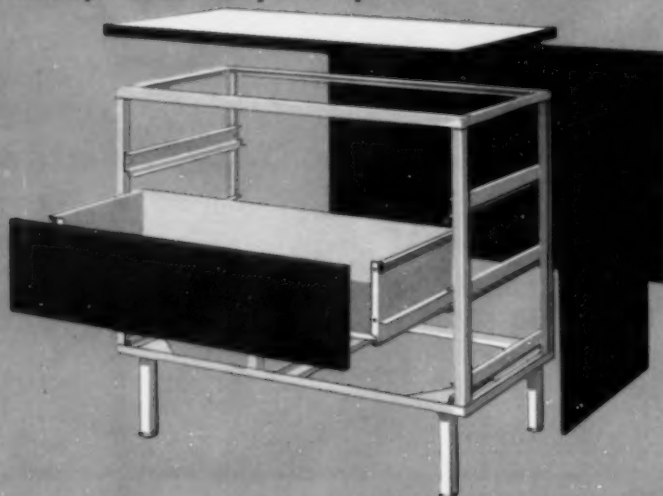
- Above No. 70, 71, 72, and 73 ROYAL HOLLYWOOD BEDS furnished with frames in widths of 36", 39", 48" and 54" respectively.
- Center No. 64 ROYAL DORMITORY BED 36" x 78" inside with LL Springs.
- Right No. 75 ROYAL DOUBLE BUNK BED 36" x 78" inside with LL Springs.



# WOODRIDGE . . . by *Royal*

The finest of institutional construction features combined  
with quality material by furniture craftsmen

"SKYSCRAPER" construction allows strength and rigidity of steel yet exteriors are of warm appealing wood with colorful and virtually indestructible plastic tops.



New concept of construction eliminates most common wood furniture failings—reduces maintenance and increases life.

**FRAME**—The case frame is constructed of 16 gauge furniture steel welded into a complete rigid unit. No warping or wear on drawer glides or cross pieces to require constant attention.

**PANELS**—Panels, drawer fronts and bed ends are constructed of high grade lumber core, American Walnut Finish Plywood, or high grade imported Finnish Birch Plywood. Method of assembly eliminates damage due to warping, glue drying and other causes, yet allows simple replacement of panels.

**DRAWERS**—Drawer interiors are constructed of steel with rounded corners to facilitate cleaning and dusting. One piece metal construction eliminates warpage, sticking and other maintenance necessities, soundproofed to eliminate noise. Drawers have automatic stops and slide effort-

lessly on smooth nylon rollers and glides. All metal parts are "Bonderized" and coated with exclusive Royal Plastelle Enamel.

**ROYALOID TOPS**—Tops are typical Royaloid construction of  $\frac{3}{8}$ " 7-ply mahogany-faced plywood with a  $\frac{1}{16}$ " thick Royaloid plastic sheet laminated to top side and a  $\frac{1}{32}$ " backing sheet laminated on the underside; effectively sealing the core. Edges are finished with same high grade Royaloid. Royaloid is available in a rainbow array of 15 decorator selected colors.

**HARDWARE**—Drawer fronts are finger grooved to facilitate opening. Hardware is available in either soft Satin Chrome finish or choice of decorative Plastelle Enamel.

**LEGS**—Legs are  $1\frac{1}{8}$ " square tubing finished in Royal's famous Satin Chrome or choice of Plastelle Enamel and equipped with chromium plated, adjustable floor glides to permit effortless movement without marring or scratching floors.



## Royal Metal Manufacturing Company

School Division • One Park Avenue • New York 16, New York  
General Offices • 175 N. Michigan • Chicago, Illinois  
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HERE... MEANS BETTER SEEING HERE



Day-Brite LUVEX® fixtures in a "U" pattern reduce fatigue and eyestrain, create a pleasant work atmosphere in classrooms of the Longfellow School, Massillon, Ohio.

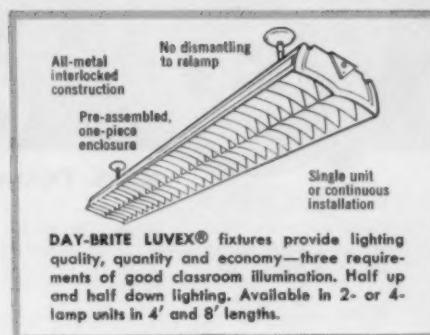
## When Light's Right, Learning's Easy!

87% of a child's education comes through his eyes. That's why you cannot afford to compromise on lighting. Always insist on Day-Brite—the nation's first choice in lighting fixtures. For proof of Day-Brite superiority, make your own comparison!

Day-Brite Lighting, Inc., 5452 Bulwer Ave., St. Louis 7, Mo.  
Day-Brite Lighting, Inc., of Calif., 530 Martin Ave.,  
Santa Clara, Calif.



NATION'S LARGEST MANUFACTURER OF COMMERCIAL AND INDUSTRIAL LIGHTING EQUIPMENT



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# Ask your Hillyard Maintaineer for Ways to Save Real Money!

He'll gladly demonstrate — on your floors, to your custodians — new streamlined floor treatments which cut application time, reduce frequency of application, simplify and lighten the chore of daily maintenance. These specialized treatments save maintenance \$, bring out and preserve the original beauty, and make your floor last years longer.

## THE ONLY MEN IN THE UNITED STATES

who have earned the right to the title "Maintaineer", or Maintenance Engineer — there are more than 150 of these Hillyard-trained floor treatment specialists. Your Maintaineer brings to your problems not only his own years of experience, but also the experience and resources of the entire Hillyard organization, now entering upon its second half century of service. Send coupon for name of the Maintaineer who will work with you — he's "On Your Staff, Not Your Payroll!"

## WHAT KIND OF MONEY are YOU SAVING NOW??



**PENNIES** — with low-price, low-quality products?

**DOLLARS** — with specialized floor treatments, which can cut labor time by as much as half!

It's amazing but true — 95c of each floor maintenance dollar goes for labor, only 5c for materials. Let your Hillyard Maintaineer show you how to change these Pennies into Dollars!

## MAIL TODAY!

HILLYARD, St. Joseph, Mo.

E-3

Please send me name of the Hillyard Maintaineer who will serve as my floor maintenance consultant, without charge or obligation.

Name \_\_\_\_\_

Firm or Institution \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_



"On Your Staff,  
Not Your Payroll."



**ST. JOSEPH, MO.**

Passaic, N. J. • San Jose Calif.

BRANCHES AND WAREHOUSE STOCKS IN PRINCIPAL CITIES







Because  
it's *mobile*...



ACTUAL PHOTOS TAKEN AT THE ROOSEVELT SCHOOL, REDFORD UNION DIST. NO. 1, DETROIT, MICH.

## Samsonite furniture can be arranged in any classroom grouping!

Gone are the days when a classroom had to be confined to a rectangular seating plan. Samsonite mobile furniture can be conveniently arranged in any grouping...whether for lectures, discussions, or work groups. Samsonite design creates a pleasing atmosphere conducive to class work and study. As for comfort, Samsonite's propor-

tioned back support and extra-large seat make a child more responsive, less restless...actually help correct poor posture. Super-strong desks and chairs take any abuse—tubular-steel frame is amazingly strong, yet surprisingly light. Our free catalogue gives you full information, specifications, and prices. Write for it today!

### Samsonite...strongest ...lasts longest

Shwayder Bros., Inc., Institutional Seating Division, Dept. CU10, Detroit 29, Michigan  
In Canada through Samsonite of Canada, Ltd.



Paul Shoemaker, Asst. Supt., Redford Union Schools, Dist. No. 1, Detroit, Mich. says: "Samsonite's functional designs and color have given our classrooms flexibility of use, tending to create an excellent pupil-teacher working relationship."

*At Hollins College, Va.*



## **MODERN, AUTOMATIC FIRE PROTECTION FOR CENTURY-OLD BUILDINGS with Grinnell Sprinklers**

"The difficulties of installing a sprinkler system in buildings which have old, but beautiful, rooms were met with complete success by Grinnell," reports John R. Everett, president of Hollins College.

"We have never had as excellent a group of workmen. Your engineers amazed all by fitting thousands of feet of pipe without damaging walls or soiling paint and paper. I can't imagine having the job done better."

These, then, are some of the practical considerations of having Grinnell install an automatic sprinkler system. But what of the intangible advantages? Things like peace of mind in knowing that students are protected

at all times . . . and that old, hallowed buildings are completely safe. Again, Grinnell Automatic Sprinklers provide the perfect answer.

For records show that fires which do start in schools (and there are an average of five a day) can be controlled wherever and whenever they start, day or night, with automatic certainty, by Grinnell Sprinklers.

There is a moral obligation upon architects and school superintendents for the utmost in protection of lives and property. For your own sake be sure the schools for which you are responsible have Grinnell Sprinkler protection. Grinnell Company, Inc., 263 W. Exchange St., Providence, R. I.



# **GRINNELL**

**PROTECTION AGAINST EVERY FIRE HAZARD**



— Manufacturing, Engineering and Installation of Automatic Sprinklers Since 1878 —

## **"Contracting," Higher Education's Most Pressing Problem**

**EUGENE E. COHEN**

*Treasurer, University of Miami, Coral Gables, Fla.*



HOW ARE COLLEGES AND UNIVERSITIES GOING TO find the hard cash to meet the needs of the avalanche of prospective students knocking at the door?

That is the specter present at the dinner table whenever college administrators get together. It is the Damoclean sword suspended over every college finance officer, like myself, when he sits at his desk trying to make income match outgo as costs of every item keep on climbing.

There is no single answer to the question, but there is one reasonable approach to a solution which as yet has been rather slightly explored, rather hesitatingly used. This approach is through contracting. Just as government agencies contract with private concerns for many services and projects, so can this method be applied to help solve the problems of higher education.

For example, if the legislature would give to its state boards of regents the authority to employ "contracting" with accredited private institutions within the state's boundaries—on a mutually satisfactory, agreed basis—then the states, the private institutions, and the students would obtain a wonderful bargain.

First, the states, without major outlay, would be assisting in providing higher education for many more students than could possibly be taken care of at existing tax supported colleges and universities.

Second, the private institutions would receive much needed financial support which would enable them to do an even better job.

Third, many students who otherwise would not have the opportunity of obtaining a higher education would be able to satisfy this yearning for learning at a reasonable cost.

How can this method of contracting be applied? Let us take a hypothetical case. We shall assume that X state agency would contract with interested private institutions within the state to pay \$400 for the school year for each in-state student attending such institutions. Let us further assume that the regular tuition charged by the private institution is \$600. Under the "contracting" arrangement, it would then be expected that the private institution would lower its own direct tuition cost by 50 per cent of

the contracted amount. It would be further recommended that for each in-state student enrolled, the state agency also would contract to provide \$100 for capital improvements and replacements. At the same time, the tuition charge for out-of-state students would be adjusted to equal the base charge at the private institution plus the contract amount.

Here are distinct gains for all concerned. For the state, the total outlay for the school year (\$400 tuition plus \$100 capital funds) would be considerably less per student than is being appropriated for tax supported institutions. This would free state funds for other pressing financial needs. The private institution would benefit, because the contracted support would help it meet current budget needs and would afford it an opportunity to accumulate more capital funds for essential additions, replacements and improvements. And students could find that the reduced tuition cost might make it more economical to attend a private institution. Last, but by no means least, for the taxpayer such a plan could mean that more education for more people could be provided without his being forced to pay more taxes. To my mind, this is a bargain in which no one stands to lose.

In approaching such a solution to education's largest current problem, we must remember that tuition income of colleges and universities does not provide an operating net. The "contracting" method is a mutually helpful arrangement that still is no panacea for all our troubles. There will be no "profit" in this program, but I see it as an important way in which to reduce deficit spending and to strengthen the academic structure which, like everything else, is founded on financial security.

Also, I see in the contracting method another way to preserve the traditional, friendly, American spirit of competition that exists between colleges and universities regardless of their sources of financial support or basis of control. That friendly spirit of competition keeps the colleges on their toes.

In summary, the real winner from the use of this method of contracting will be all of America, the young and old alike. #

## LOOKING FORWARD

### **An Inventory of Higher Education**

SENATOR CLIFFORD P. CASE (R.-N.J.) HAS DEMONSTRATED a concern for the adequacy of higher education's facilities to handle overflow enrollments by introducing a bill (S. 2763) calling for an inventory of college facilities.

Under the provisions of the bill, the senator recommends an appropriation of \$2.5 million to be made available to the states on a matching basis. The bill would provide assistance to the states to inventory college facilities, to survey the need for additional college facilities, to develop state plans for college expansion, and to study the adequacy of state and other resources available to meet college facilities requirements.

Senator Case's proposal is an implementation of a recommendation by the President's Committee on Education Beyond the High School that: "The growing demands require development of national, regional, state and local plans. The Committee endorses the planning steps taken recently in many forward looking states and in the Southern, Western and New England regional groups. Such activity must be extended and must go forward. Plans should not be allowed to become dated.

"Plans must be comprehensive. They should be made by and account for all institutions of education beyond high school, public or private, vocational or liberal, rural or urban, and whether serving youth or adults. They should result in integrated or interrelated flexible action programs."

The Case proposal has the merit of providing a financial nudge to those states that have been slow in making an inventory of their facilities for higher education. Perhaps, under such stimulus, the state legislatures will get off dead center and get something done. It's getting too late to fumble much longer.

### **The Liberal Arts Idea**

THE LIBERAL ARTS PHILOSOPHY OF HIGHER EDUCATION got a big boost from Princeton University's 38 year old president, Robert F. Goheen, in a speech delivered at the opening of the 211th academic year of the university. In his address Dr. Goheen declared that "a liberal education is essentially an education for use."

"I do confess a certain envy for those persons whose minds seem indelibly stored with meticulously filed data on everything under the sun.

"This kind of competence has its usefulness and, apparently, a new high lucrativeness on television. It is

distinctly not, however, with this sort of competence and achievement that a liberal education is essentially concerned. The goal of a liberal education is the outreach of the mind—beyond local prejudice and slavish veneration for that which is of merely immediate appeal—to broad grounds for understanding and decision and the ability to think constructively and for oneself.

"When once entered into and experienced over a period of years those two qualities remain as guiding attitudes and habits of mind. As such, they become a part of a man's capacity to render meaningful service and to bear responsibility wisely, whatever he may do in later life. Liberal education is not a luxury item a free society can afford to surrender or even much dilute."

In a society that places a premium on technology, it is refreshing to discover an articulate spokesman for the basic values of education. Princeton is entitled to congratulate itself on the selection of Dr. Goheen as its new president.

### **This Is Justice?**

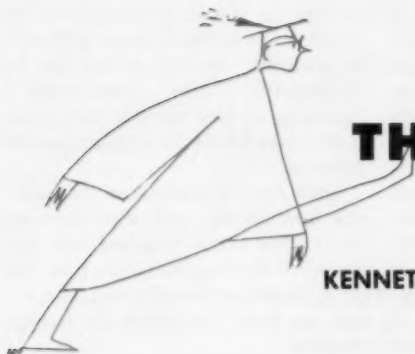
THIS FALL THE RECORD ON MATTERS OF INTEGRATION in colleges and universities is better than that of previous years. There is certainly no cause for complacency, however.

Disturbing, indeed, is the knowledge that a business manager of a member institution of one of the college and university business officer associations was not offered the opportunity of accommodations in the official convention hotel of the association on the occasion of that association's annual meeting held in Texas. The offense: The business manager is a Negro.

Shameful, too, that the college business management workshop at the University of Kentucky makes no provisions for housing Negro college business managers who wish to enroll in order to improve their professional competence. This is particularly ironical in view of the fact that Kentucky has been one of the border states to show a remarkable record of peaceful integration of its schools. The result: Business managers from Negro colleges must travel many additional miles to Omaha for the business management training they desire.

Discrimination of this nature is inexcusable anywhere, North or South. To find this evident in education, which should be dedicated to the search of ultimate truth, is reprehensible. Educators, even more than other citizens, should make certain that discrimination because of race or color is not permitted to exist.





A proposal equitably to determine

## THE TEACHING LOAD

KENNETH K. HENNING and THOMAS R. MASTERSON

Department of Management, De Paul University, Chicago

DETERMINATION OF A JUST SERVICE load for full-time faculty members involves bringing into concert two apparently divergent points of view. Stripped of considerations that really are not germane, the basic problem is not far removed from the familiar wage-hour problem confronting the business executive and his employees and/or their representatives.

### THE ADMINISTRATION VIEW

On the one hand, management, whether in industry or in education, frequently exhibits a tendency toward viewing its employees (executive or labor, professional or nonprofessional) as a *cost of doing business*. It also tends to believe that employees of all grades and classifications should be economically productive at least to the point of paying their own way. That is, each man on the payroll is expected to contribute to the organization's revenues at least enough to cover the costs of continuing his employment.

These tendencies of management can be demonstrated in institutions of higher learning. For example, the faculty's summer compensation frequently is at a reduced rate. The school justifies this practice because summer classes are smaller (hence less revenue). Or, classes are canceled when enrollment falls below the economic break-even point, save in the largest, most heavily endowed universities. There, the belief is held that such small classes can be subsidized.

In working out their teaching schedules many schools attempt at least to equate the over-all revenue generated by a faculty member with the salary

he commands. This frequently is done in the aggregate—at either the departmental or collegiate level—with higher salaried full professors teaching upper division courses with limited enrollments compensated for economically by teaching assistants and lower salaried instructors teaching lower division courses with substantial enrollments.

Quite naturally then, when thinking along these lines, a school tends to feel that a reduction in teaching load of a university professor, *ceteris paribus*, should be offset by larger classes in order that the pay-his-own-way equation can be maintained.

This enlargement of classes can proceed only so far, however, either because of a desire to achieve or to maintain high quality of teaching or because of fear of censure by accrediting agencies. Additional staff must then be recruited. Thus, beyond a certain point, reduction in teaching hours adds to university short-term costs. And since the university management has the responsibility for meeting these increased costs, it usually is somewhat resistant to suggestions from faculty or accrediting or professional agencies that teaching hours be reduced.

### THE FACULTY VIEW

On the other hand, faculty members frequently tend to view the teaching load as an integral part of the university's "salary-hour" offer. In the light of alternatives open to them, they either accept or reject the salary-hour package.

To a faculty member, an offer of annual salary of \$6000 coupled with

a 15 hour teaching load is quite different from an offer of annual salary of \$6000 coupled with a 12 hour teaching load. To the faculty man, salary is revenue; service hours represent a "cost of doing business" as a professional. This attitude is understandable, for the faculty man is well aware that his creative energies, though finite, must be distributed over such competing demands as publishing, attending meetings of learned societies, committee assignments, and so on.

### RECONCILING THESE VIEWS

Scientific business management does not believe that these "apparently divergent points of view" are really divergent. It has long held that the proper approach to a salary-hour problem is *not* via the wages-fund theory—assuming a fixed revenue fund with management and employees competing against each other to hold their present positions and, if possible, to improve them, necessarily at the expense of the other party. Rather, scientific management has demonstrated time and time again that management-employee cooperation that results in the establishment of an equitable salary-hour "package" inevitably yields a significant improvement in the net revenue picture, with substantial economic and psychic gains for both management and employees.

It is suggested that substantial changes be made in the thinking of both university management and university faculties.

While short-run costs are important and while a management unable to control its short-run costs is failing in

its responsibility, nevertheless, long-run costs are more important, and the long-run relationship of costs and revenues is more important still.

In the long run there are "costs of doing business" in high turnover of faculty and in creating an attitude of conservatism over what proportion of a teacher's creative energies should be allocated to teaching. There are important revenue implications in recruiting and maintaining a high quality, stable, educationally productive faculty capable of attracting good students and able to generate strong financial support for the institution from the community and from business.

It is dubious economics to gain a small decrease in short-run costs if the decision means that substantial increments to long-run revenues will not be realized as a consequence.

For its part the faculty must be brought to a clearer realization that universities do not have unlimited resources and that, while striving for valuable long-run objectives, universities have incurred financial obligations that they must meet out of sometimes meager current resources.

## CONCLUSIONS

1. We believe that in determining fairness in the matter of full-time faculty service loads, recommendations submitted by associations of college administrators on the one hand and by associations of college faculty on the other should be substantially discounted as reflecting too strongly the special interests of the two parties.

2. Since it is obvious that the demand-supply relationship recently has turned strongly in favor of faculties, and since this situation is expected to continue into the foreseeable future, it would be most unwise from the point of view of retaining *qualified* faculty in a highly competitive market to demand more hours of work than is demanded elsewhere.

Teaching loads at comparable institutions (for comparable departments) and teaching loads recommended by *professional* and *accrediting* agencies should be used as guides because these will in the long run determine the competitive conditions confronting universities. However, such guides do no more than establish maximum teaching loads.

Within this general framework, the unique, specific requirements of each university can best be met through cooperative attack on the problems by

its faculty and administrative officers, with the best over-all, *long-range* interests of the university as the value to be served.

3. The administration should realize that many variables need to be weighed in determining equitable full-time faculty *service* loads. A particular teaching load should be reduced when the faculty man has assumed management duties, but it must be understood that the time and effort demands of management positions, such as chairmanships, vice chairmanships, and the like, vary widely, depending upon such factors as whether the field is dynamic or static, the number of students majoring in the field, the size of faculty in the department, and similar factors.

Reductions in teaching load also should be granted to faculty members for completing graduate work, leadership positions in learned or professional societies, preparation of manuscripts for publication, extensive participation in radio or television programs, research in the field, and certain committee work. But, here again, the time and energy demands of the work on the teacher and its over-all value to the university will vary widely.

## ACTION RECOMMENDED

We believe that many universities would benefit from new procedures that have been devised to assure equitable decisions on basic teaching loads. We suggest that the university administrator consider establishing a standing committee, consisting of management and faculty representatives empowered to reduce an individual teaching load below the established level.

Written petitions requesting reduction in teaching load would be submitted to this committee by the faculty men concerned. Should the committee act favorably on a petition, the committee would then be responsible for monitoring the situation to ensure that the university receives value in return for the reduction granted.

It is evident that a committee carrying such a responsibility must be composed of the most mature officers of administration and faculty. The broadest vision, the highest wisdom, is not too much to demand if deciding among competitive requests of this character is to be done equitably and with due regard to the "competition" between the short-run and long-run interests of the institution.

Further, it appears self-evident that if such a committee is actually to "monitor" requests granted, it must be made up of nothing less than the best talent available. What more delicate problem in human relations could be found than whether to exert "pressure" on a scholar who may or may not be unjustifiably dilatory? Determining a "question of fact" of this nature requires exercise of the highest human faculties.

Only from a committee representing both faculty and administration could come a true weighing and balancing of the long and short runs, for the pressure on the administration favors the short, that within the faculty, the long.

Individuals do not increase their capacity for responsibility until after they carry responsibility. Men *grow* to meet the demands of their jobs. This developmental process will occur in the faculty men selected for the committee we recommend, if they are properly selected and coached. Faculty and administration are indissolubly bound together in the service of an institution greater than both of them combined. The overwhelming advantages of cooperation over more or less mutual suspicion and mistrust will disappear. If for no other reason, this situation will come about because a disappointed faculty member will have the reasons for his request's disapproval explained to him by a fellow faculty officer and not by an officer of administration.

## CARRIES PRESTIGE

Casual selection of members for the committee would be catastrophic. The explanation of the nature of the responsibilities devolved must be clear, patient and thorough. Much prestige must attach to service on the committee. The continuing interest of the top administrative officers is essential to the members treating their responsibilities with sufficient gravity.

If the foregoing precautions are observed, we believe that such a committee would be the best instrument for obtaining the optimal balance between the apparently competitive long-run and short-run claims on the institution's limited resources.

In the last analysis, the best means of solving complex problems discovered to date is to ask intelligent men of good will to pool their wisdom and talent in cooperative attack on problems of mutual interest. #

# FREEDOM'S DECLINE

The tragedy of our day is that the colleges,  
pledged as they always have been  
to the preservation of freedom, unwittingly  
have contributed something to its impairment

**CLAUDE W. FAWCETT**

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CERTAIN FACTORS IMPAIR THE ABILITY of an institution to carry on its classic contribution to freedom, factors that are the result of lack of information and controls essential to good self-discipline within an institution. Many of them are not clear even to the instructional staff; they are clear only to the central record keeping office, which is the business office. If they are to be corrected, and if the institution is to serve its classic purposes, then information must be provided by the business office. The business officer is, therefore, an educational officer in the broadest meaning of the term.

In this day when freedom is under attack from all sorts of sources, both at home and abroad, it is inconceivable that we should give up one iota of it voluntarily because we have too little information to protect ourselves.

Our colleges and universities have, at times, followed courses of action that have seriously impaired the freedom we so strongly support. The tragedy of these actions has been that they seemed so logical and so necessary.

As an example, it seems almost trite to say that an institution should meet its competition in terms of courses offered, quality of teams entered into intercollegiate competition, and quality of faculty. Yet the unthinking acceptance of this standard has led more collegiate institutions into difficulty than almost any other action.

The attempt to "keep up with the Joneses" in matters of curriculum has caused some colleges and universities to institute a plethora of departments

and divisions, which often are "loss" operations in the true sense of the term. They fail to command the support of donors or legislators. They fail to attract students in sufficient numbers. As a result, they limp along with a faculty of low quality unable to provide that spark that eventually will lead to more students or to more financial support.

The sad part of this competition with other colleges is the effect it has on other departments and divisions that normally could be perking along with considerable enthusiasm and success. In the private institution, the great danger is that the "loss" department will bleed the budget of the other departments to the extent that it is impossible for them to perform their functions properly.

A case in point: One of our western universities conducts a medical school at tremendous loss. To run this medical school requires subsidy from the general fund of the university of one-half million to three-fourths million dollars a year. Whether the prestige of the university is such that this expenditure is justified is, of course, a matter of policy that must be decided by the institution itself. What has happened in the medical school can be multiplied several times over in other departments and divisions involving lesser sums and fewer people and, perhaps, less important factors of prestige.

In the public institution, the "loss" division has an even more serious effect. Since it is unable to get faculty and students of quality because of lack of public support, the public loses confidence in the quality of all instruction performed there. Nothing is quite

so harmful to a college or university as the suspicion that it will accept students other institutions won't take or that it is giving poor instruction. It may very well be that a low quality of instruction is confined to but one division, but the taint quickly spreads to all others.

Perhaps too much already has been said in the public press about the problem of "keeping up with the Joneses" in terms of competitive sports, but the pathway for doing so usually is through the alumni associations. It is characteristic of human beings that usually they pay attention to only one major volunteer project at a time. If we put the alumni association into the business of recruiting athletes—whether it devotes its financial resources to it or not—it is likely to be interested in other affairs of the institution only as they may affect athletics. The saddest spectacle in modern higher education is to see a president or chancellor compelled to risk his academic career on his judgment in selecting an athletic coach.

If the business principles of competition really applied to this process of trying to meet the offerings of the opposition, all would be well. We could institute a department or division and eliminate it if it failed to meet the test of use and support.

But heaven knows no fury greater than that of a graduate of a division that has been eliminated! Usually there are protest meetings; alumni not associated with the division are called upon to throw their weight toward its restoration. The sacred prestige of the institution is threatened, along with the president and the board of trustees.

From a paper presented before the Western Association of College and University Business Officers, Victoria, B.C., 1957.



All hell breaks loose! As a result, institutions are stuck with procedures and practices constantly draining their finances and their reputation without their being able to do much about it except to suffer in silence.

Another example of a logical course of action is the attempt to enroll more students. This disease affects every professor, every department, and every division. It sounds logical to say that a larger number of students inevitably indicates success for the professor or the department or division head. There is truth in this line of reasoning, but there is fallacy also.

#### **EASY TO RATIONALIZE**

The private institution may be harassed by a shortage of endowment funds, depending far more than is desirable upon tuition to make both ends meet. Under such circumstances, it is inevitable that certain compromises will be made in order to get numbers of tuition paying students. One of these compromises may be a relaxation in admission standards. No institution will deliberately sacrifice its academic standards, but rationalization is easy. The common rationalization is that any person deserves a chance to prove himself if he has a halfway chance of succeeding.

Another compromise often made is to increase the size of freshman classes so that the profits (if I may use a business term) will offset the loss incurred in the smaller and more expensive upperclass work. This compromise with larger classes often provides instruction from the lower faculty ranks for the larger classes. This further widens the profit margin that can be applied to upper-level course instruction. Furthermore, it fixes the character of a faculty so that there are a few top men in their fields and a large number of beginners or graduate students at the lower levels of instruction. This greatly enhances the possibility of getting along without too much support in the way of endowment.

Another compromise perennially made is to step up the part-time enrollment of the institution in evening classes conducted for employees or residents in the area. Many evening school instructors are willing to teach for a relatively small amount either because the income received is supplementary to their regular income from nonuniversity sources or because they regard it as a public service. The moral of

this type of payment to faculty should be immediately suspect. Often the person selected is chosen less for his capability for teaching than for his willingness to work for the salary offered.

Another difficulty with evening programs is that classes usually are large. Many evening programs are expected to show a tidy profit and so assist in meeting other deficits of the university or college. Class size usually is a criterion of whether the class will be offered. Evening students and evening faculty members usually are not so demanding in their academic requirements because of the fatigue accompanying extra activity after a hard day's work. Hence, this difficulty of class size generally is acceptable to all concerned.

The desire for numbers is not an exclusive province of the private institution. Numbers seem to have an almost hypnotic influence on legislators in appropriations made for state institutions. There is a constant temptation to exclude from admission only the most likely failures. One state college in a recent year lost almost half of its freshman class before the beginning of the spring quarter. Nothing but the highest of motives were involved. There was a deep and sincere belief that any graduate of a high school in the upper section of his class had a right to attempt to succeed in college.

#### **LOGICAL COURSE OF ACTION**

Another example of a perfectly logical course of action that may lead to a loss of freedom is the desire of faculty members to do "practical" research on community problems. The institution properly seeks this type of activity not only because it adds to its prestige but because it feels a responsibility to the community to make its resources available. This is desirable for all parties concerned.

Yet, like some of the other logical courses of action described, this practice may lead to excesses that impair the function of the institution. A good example is the case of the head of an electrical engineering department. He assigned himself 12 hours of classroom teaching and took an outside research job with an industrial concern. The outside research activity consumed 35 hours a week. His good intention of providing at least four hours of consultation time at the university gradually was forgotten. After a year of

this split activity, he found that he was spending 12 hours of the week on campus and 35 hours of the week at the industrial firm. Furthermore, his research outside of the institution was a classified project from which he could bring nothing back to the institution which retained him as the head of its electrical engineering division.

If this seems unusual because of a current shortage of engineering personnel, let us take the case of the professor of educational administration. One of his students last spring noted that his advanced research class was met by the professor only three times in the last six weeks of the quarter. The rest of the time the class was met by other members of the department or by some visiting school superintendent who ordinarily taught only during the summer. The professor was conducting a school survey for a distant community.

#### **SALARY PROBLEM**

In all fairness, it must be noted that this state of affairs often is more of a salary problem than it is an attempt to provide the service of skilled and knowledgeable individuals to the community. Many times the salaries that can be paid to members of the faculty are not competitive with what they can earn at other institutions or in nonteaching positions. Then comes the temptation to encourage consulting. If the consulting work goes so far that the professor is useless to the students to whom he is primarily responsible, is anything gained except an iota of prestige for the institution, which may be counter-balanced by the loss in the effectiveness of its graduates?

Perhaps the time has come when we need to put the emphasis less on "action research" and more on the "ivory tower" not only for the benefit of students and institution but for the benefit of mankind.

Closely akin to the problem of research in the community is the problem of publication of research. No one questions the fact that a university or college should make available through publication the knowledge and the insight of its faculty members. Yet this activity often can lead to excesses that impair the proper function of a university or college.

An example of the method in which this quite legitimate goal can be corrupted is to be found in the professor who has a standing agreement with his graduate students. The proposition



is this: If the student will do the backbreaking research on a particular problem, the professor will rewrite it slightly, add his name as senior author, and then use the prestige of the institution to obtain its publication as a standard document in the field.

It is amazing how this procedure actually multiplies the potential output of an individual professor. And it is justified on the most rational of grounds. The student needs to do the research; the professor has added something by assisting with the research and rewriting; the student needs to have something published in order to command attention when seeking employment as a professor elsewhere. The only possible loser is the institution, which usually pays no attention to the quality of the publications of its faculty members.

Almost equally destructive of an institution's reputation is the lecture accumulation process of book writing. This is known as the "Painless Parker" procedure for writing textbooks, and it satisfies the publication requirements for advancement in rank on the college faculty. The technic is simple: Write out a lecture regularly for presentation to the class; at the end of the course accumulate the lectures as a group, edit them for continuity, and publish them as a book for the course.

A certain sale may be guaranteed by causing the students in successive courses to purchase the book. Such documents are usually a survey of the

research that has been done by other people in the field. The contribution of the author, if any, is to summarize the research done by others and string others' findings together in a somewhat readable fashion so that they can be absorbed by students. Some of this may be essential for the conduct of a proper course, but it adds little to the stature of the institution or to the reputation of the professor.

So it is that we voluntarily sacrifice some of the academic freedom so essential to the maintenance of freedom for everyone in all things. For without knowledge to guide us, freedom is unattainable. Without a devotion to freedom based on knowledge, there is no opportunity to gain it.

The college or university budget is not only a list of expenditures to be made but also a statement of purpose and a plan of action. When it is to be expanded, it is to be expanded to change the purpose or the plan. When it is to be cut, it is to abandon the purpose or to change the plan. Hence, good budgetary procedures inevitably lead academic officials to involve the financial officer in the planning of purpose and action.

This provides the business officer an opportunity to investigate and perhaps to recommend that academic officers reconsider measures designed to "keep up with the Joneses." It provides an opportunity for him to insist upon clarity of purpose in operation. It provides him an opportunity to advise upon the questions of "loss" operations

such as those cited. This is an opportunity not often allowed, but logically it eventually must be done.

Cost figures, of course, are tyrannical, but the business official has a duty to work out costs in terms of various sizes of operations. There is a break-even point of maximum efficiency as size varies. He is the man to provide this information. It is also his duty to make clear the cost—in terms of purpose—of admission procedures that produce a high loss ratio during the early years of college enrollment. These are only a few of the cost analyses essential to adequate educational planning within an institution.

#### BUSINESS OFFICER'S RESPONSIBILITY

The business officer should have the responsibility for making the contracts for research done by staff members, even though the services are rendered outside the college campus. This is not to say that the business office should have the power to approve or disapprove the conduct of the research, but some control system must be set up to assure the institution of the proper and reasonable services of its teaching staff. It is too much to hope that the proceeds of outside consulting service and research should flow into the general funds of the institution, but the control of faculty time certainly is within the province of the employing organization, and the business officer of the college is the logical one to produce the information.

It is probably a vain hope to wish that all contracts for the publication of articles and books be made through the business officer. He certainly would not be allowed the authority to decline or to approve any such contract, but there needs to be a centralized information center into which can be placed the responsibility for providing information concerning the level of activity of various educational officers. The business office seems to be a logical control center for this type of information.

If this seems an illogical set of activities for the business officer of a collegiate institution, it should be remembered that he does not operate in a vacuum. His activities are inextricably entwined within the purpose of the institution itself. Tradition may refuse him access to the decisions involved in the establishment of instructional policy, but it is weakened to the extent that he is not included in its establishment. #

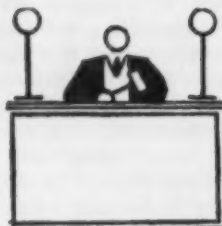
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**A course of action entered upon as  
a logical attempt to meet the competition  
sometimes winds up as a millstone  
around the institution's neck. Diffusion  
of courses and the consequent sacrifice of  
quality in the faculty reflect a lack  
of definiteness of purpose. All these  
impair the ability of a college to be  
a beacon of truth in a world of confusion.**

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**How much time does South have to end**

## **Segregation in Higher Education**



**T. E. BLACKWELL**

*Educational Management Consultant  
Washington University, St. Louis*

EVER SINCE THAT HISTORIC DAY OF May 17, 1954, when the Supreme Court of the United States declared that segregation, based upon race or color, must end in public education,<sup>1</sup> the people of the South have been concentrating their attention upon four significant words in the order of the court<sup>2</sup> implementing this decision, *i.e.* "with all deliberate speed." In this process of desegregation, would the emphasis be upon the word "deliberate" or upon "speed"? How much time would the federal judges give the people of the South in which to effectuate this revolution in their social mores?

Those basing their hopes upon the word "deliberate" could point to the following excerpt from the order of the court in support of their view:

"Full implementation of these constitutional principles may require solution of various local school problems. School authorities have the primary responsibility for elucidating, assessing and solving these problems; courts will have to consider whether the action of school authorities constitutes good faith implementation of the governing constitutional questions. Because of their proximity to local conditions and the possible need for future hearings, the courts which originally heard these cases can best perform this judicial appraisal."

Others, less optimistic as to the time that would be granted, could cite the following excerpt from the same order:

"While giving weight to these public and private conditions, the courts

will require that the defendants make a prompt and reasonable start toward full compliance with our May 17, 1954, ruling."

The Tennessee State Board of Education, after long consultation with interested groups, drew up a program for the gradual integration of the races in the six tax supported institutions of higher education under its control. In the resolutions adopting the program, the board declared that it was its intention to comply promptly with the decision and opinion of the U.S. Supreme Court in the segregation cases, but that, because of limited physical facilities and the large number of students that would probably seek admission under the court ruling, the following time schedule was essential to protect educational standards: (1) For the scholastic year 1955-56, qualified Negro students shall be admitted for graduate work; (2) for 1956-57, they shall be admitted to the senior classes; (3) for 1957-58, to the junior classes; (4) for 1958-59, to the sophomore classes, and (5) for 1959-60, to the freshman classes.

Five Negro students, unwilling to wait for the time when they could be admitted under this program of gradual integration, applied for admission to Memphis State College, now Memphis State University. When refused admission, they requested the local federal district court to issue a permanent injunction to restrain the members of the state board of education and the officers of the institution from refusing to admit them as students solely because of their race.

The district judge, in exercising the judicial appraisal of local conditions delegated to him by the U.S. Supreme

Court, found, as facts, that there was no effort or intention on the part of the state board of education to evade or circumvent the decision of the court; that it had devised the proposed plan in good faith after consultation with advisory groups representing various segments of affected interests; that, because of the physical, financial and practical problems involved, a gradual plan of desegregation offered greater possibility of eventual complete acceptance of the situation by members of both races than would an abrupt transition at present, and that time is absolutely necessary to carry out, in an effectual manner, the rulings of the U.S. Supreme Court.

Despite this judicial determination of facts by the local federal court and its plea for more time for the social adjustments required, the U.S. Court of Appeals reversed the lower court's decision and declared the program of gradual admission of Negro students to be in violation of the Fourteenth Amendment to the federal Constitution.<sup>3</sup>

Judge Miller declined to agree with the two other judges of his court. In his dissenting opinion he declared:

"Unless the district judge abused his discretion in approving the plan proposed to meet the problems presented by such a factual background, we are not authorized to reject the plan in order to substitute a different plan of our own. That there are problems, practical as well as physical and financial, can hardly be denied. The district judge, a long-time resident of Memphis, Tenn., and closely in touch with the local situation, is much better situated to understand, analyze and evaluate the problem than we are. . . . I am of the opinion that there was no abuse of discretion on the part of the district judge and that the judgment should be affirmed."

I have just completed a survey of the business and fiscal administration of the seven tax supported institutions of higher education in Tennessee. Those with whom I discussed the problem of integration were able to converse without emotion. Apparently, members of both races in the border states are willing to abide by the decisions of our courts if given time to make the necessary adjustments. However, if we are to believe the reports of some writers on the subject, the word from the Deep South is "Never!" #

<sup>3</sup>Booker v. State of Tennessee Board of Education, 240 F. 2d 689 (1957).

<sup>1</sup>Brown v. Board of Education, 347 U.S. 483 (1954).

<sup>2</sup>Brown v. Board of Education, 349 U.S. 294 (1955).



# We Evaluate the Work of Our Student Employees

**J. M. SLATER**

Assistant to the President  
Blackburn College, Carlinville, Ill.

Blackburn students help earn their education through a self-help plan. Students do all the maintenance work at the college, cook the meals and do the laundry. The work plan, which has been in continuous operation since 1913, was conceived originally as a means of putting a college education within the reach of able students who otherwise would be unable to afford it.

IN MOST RESPECTS BLACKBURN COLLEGE, Carlinville, Ill., is a typical small liberal arts college. For 44 years, however, each resident student has accepted a nonacademic assignment that requires 15 hours of work each week.

Most of the work assignments can be classified in one of the following categories: construction, maintenance, stoker firing, janitor service, food service, secretarial, receptionist, faculty assistantship. Because students perform these tasks, operating expenses are reduced and the savings to the college are passed on to the student in the form of low rates for room and board.

From its inception, the work program has contained elements of evaluation. Each year it has been customary to select student managers from those who have exhibited leadership, industry and good judgment in the performance of daily tasks. Recommendations to prospective employers frequently have included reference to the work assignments that students held. Throughout the Twenties and Thirties these evaluations were of the informal type. No effort was made to see that the official record of each student gave a report of jobs held and the quality of the performance of each of these assignments.

In 1941, our work committee\* began to evaluate the work of each student at the conclusion of each academic period. The evaluation included the following three descriptive terms: honor, satisfactory, unsatisfactory. The procedure was simple. Student managers and/or faculty supervisors submitted one of these three grades for the period and person in question.

Three years later supervisors began to rate the students on attitude, industry and initiative. A 10 point scale was provided for each of these traits. Points scored on the rating scales were totaled and the grade for the term was then determined on the following table:

Evaluation	Points
Honor (H) .....	26-30
Excellent (E) .....	21-25
Satisfactory plus (S+) .....	16-20
Satisfactory (S) .....	11-15
Satisfactory minus (S-) .....	6-10
Unsatisfactory (U) .....	0-5

Thus began systematic and sustained efforts to record the quality of each student's performance in the work program.

Before a student reports for a new work assignment, he is provided with a brief description of the work he will do, what he is to wear, when he will report, and so forth. This

material also includes a definite statement as to how his work will be evaluated. For example, a freshman reporting to work as a residence hall janitor in the fall of 1956 received the following statement concerning the grade that he could anticipate at the close of the first academic period.

"V. Evaluation of Work. Your work will be graded by the people using the area, dormitory proctors, etc., and by the janitor head who will frequently check the cleanliness of the area. The quality of your work will be judged by having your work done *well* at all times. This includes: making sure your area is clean, proper care of equipment, return of equipment that must be shared, keeping needed supplies on hand at all times, leaving your supply closet in a clean and orderly condition. Such factors as your ability to take criticism and suggestions and to cooperate with others

\*The work committee consists of 10 students and four faculty members. Student members are: men's work manager, women's work manager, manager of student center, kitchen head, dining room head, head janitor, head janitress, head fireman, construction head, and laundry head. Faculty members are: assistant to the president, director of food services, superintendent of buildings and grounds, superintendent of new construction. The president of the college is an ex-officio member.





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Court, found, as facts, that there was no effort or intention on the part of the state board of education to evade or circumvent the decision of the court; that it had devised the proposed plan in good faith after consultation with advisory groups representing various segments of affected interests; that, because of the physical, financial and practical problems involved, a gradual plan of desegregation offered greater possibility of eventual complete acceptance of the situation by members of both races than would an abrupt transition at present, and that time is absolutely necessary to carry out, in an effectual manner, the rulings of the U.S. Supreme Court.

Despite this judicial determination of facts by the local federal court and its plea for more time for the social adjustments required, the U.S. Court of Appeals reversed the lower court's decision and declared the program of gradual admission of Negro students to be in violation of the Fourteenth Amendment to the federal Constitution.<sup>3</sup>

Judge Miller declined to agree with the two other judges of his court. In his dissenting opinion he declared:

"Unless the district judge abused his discretion in approving the plan proposed to meet the problems presented by such a factual background, we are not authorized to reject the plan in order to substitute a different plan of our own. That there are problems, practical as well as physical and financial, can hardly be denied. The district judge, a long-time resident of Memphis, Tenn., and closely in touch with the local situation, is much better situated to understand, analyze and evaluate the problem than we are. . . . I am of the opinion that there was no abuse of discretion on the part of the district judge and that the judgment should be affirmed."

I have just completed a survey of the business and fiscal administration of the seven tax supported institutions of higher education in Tennessee. Those with whom I discussed the problem of integration were able to converse without emotion. Apparently, members of both races in the border states are willing to abide by the decisions of our courts if given time to make the necessary adjustments. However, if we are to believe the reports of some writers on the subject, the word from the Deep South is "Never!" #

<sup>3</sup>Booker v. State of Tennessee Board of Education, 240 F. 2d 689 (1957).

<sup>1</sup>Brown v. Board of Education, 347 U.S. 483 (1954).

<sup>2</sup>Brown v. Board of Education, 349 U.S. 294 (1955).





# We Evaluate the Work of Our Student Employees

**J. M. SLATER**

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Blackburn students help earn their education through a self-help plan. Students do all the maintenance work at the college, cook the meals and do the laundry. The work plan, which has been in continuous operation since 1913, was conceived originally as a means of putting a college education within the reach of able students who otherwise would be unable to afford it.

IN MOST RESPECTS BLACKBURN COLLEGE, Carlinville, Ill., is a typical small liberal arts college. For 44 years, however, each resident student has accepted a nonacademic assignment that requires 15 hours of work each week.

Most of the work assignments can be classified in one of the following categories: construction, maintenance, stoker firing, janitor service, food service, secretarial, receptionist, faculty assistantship. Because students perform these tasks, operating expenses are reduced and the savings to the college are passed on to the student in the form of low rates for room and board.

From its inception, the work program has contained elements of evaluation. Each year it has been customary to select student managers from those who have exhibited leadership, industry and good judgment in the performance of daily tasks. Recommendations to prospective employers frequently have included reference to the work assignments that students held. Throughout the Twenties and Thirties these evaluations were of the informal type. No effort was made to see that the official record of each student gave a report of jobs held and the quality of the performance of each of these assignments.

In 1941, our work committee\* began to evaluate the work of each student at the conclusion of each academic period. The evaluation included the following three descriptive terms: honor, satisfactory, unsatisfactory. The procedure was simple. Student managers and/or faculty supervisors submitted one of these three grades for the period and person in question.

Three years later supervisors began to rate the students on attitude, industry and initiative. A 10 point scale was provided for each of these traits. Points scored on the rating scales were totaled and the grade for the term was then determined on the following table:

Evaluation	Points
Honor (H) .....	26-30
Excellent (E) .....	21-25
Satisfactory plus (S+) .....	16-20
Satisfactory (S) .....	11-15
Satisfactory minus (S-) .....	6-10
Unsatisfactory (U) .....	0-5

Thus began systematic and sustained efforts to record the quality of each student's performance in the work program.

Before a student reports for a new work assignment, he is provided with a brief description of the work he will do, what he is to wear, when he will report, and so forth. This

material also includes a definite statement as to how his work will be evaluated. For example, a freshman reporting to work as a residence hall janitor in the fall of 1956 received the following statement concerning the grade that he could anticipate at the close of the first academic period.

"V. Evaluation of Work. Your work will be graded by the people using the area, dormitory proctors, etc., and by the janitor head who will frequently check the cleanliness of the area. The quality of your work will be judged by having your work done *well* at all times. This includes: making sure your area is clean, proper care of equipment, return of equipment that must be shared, keeping needed supplies on hand at all times, leaving your supply closet in a clean and orderly condition. Such factors as your ability to take criticism and suggestions and to cooperate with others

\*The work committee consists of 10 students and four faculty members. Student members are: men's work manager, women's work manager, manager of student center, kitchen head, dining room head, head janitor, head janitress, head fireman, construction head, and laundry head. Faculty members are: assistant to the president, director of food services, superintendent of buildings and grounds, superintendent of new construction. The president of the college is an ex-officio member.

in the department will also be taken into consideration."

Midway through the first semester each supervisor provides a preliminary evaluation of those persons whose time card he has been signing. Our form for evaluation (grading sheet) contains the following eight characteristics that serve as a basis for the work grade which the student will receive: quality of work, volume of work, knowledge of work, attitude toward the work assignment, initiative, attitude toward criticism and suggestion, personal appearance, ability to assume responsibility.

The final evaluation is summarized in a grade of honor, excellent, satisfactory plus, satisfactory, satisfactory minus, unsatisfactory. Unsatisfactory workers may be recommended to the faculty committee on student status for dismissal from the college. Honor workers will be identified publicly in the same manner as is a student who receives academic honors.

## EVALUATING SECRETARIES, ASSISTANTS

Grading frequently is accomplished by comparison of one worker with another. Thus it is relatively simple to note contrasts in the work of from 30 to 50 students on a construction crew, in the kitchen, or in the dining hall. In the case of a janitor who cleans a number of offices, the supervisor can get an evaluation from each of the persons served. However, secretaries and instructors' assistants are customarily responsible to only a single person, and this person seldom has more than three student aides, each of whom has a completely different assignment. Differentiation is complicated further by the fact that all assistants and most secretaries are students who have been in attendance for some time and have demonstrated initiative and positive attitudes in numerous ways. Many secretaries and assistants have received work honors prior to their appointment in one of the offices.

For these reasons it was, at first, thought best not to include office personnel in the grading system. Supervisors reasoned that selection for one of these positions was in itself evidence of honor status. Eventually, however, office and laboratory workers indicated that they, too, wished to have their work evaluated on some basis other than retention or dismissal. Numerous attempts have been made to discriminate between secretaries of various abilities by means of the H, E, S system but, lacking a common reference point, these efforts have lead only to disappointment. It recently has been concluded therefore that:

"Instead of the usual grading, secretaries and assistants will receive a written evaluation at the end of each year or after a student stops working for a faculty member.

"The names of student secretaries and assistants will be read at the annual Honors Banquet as a formal recognition of their contribution.

"In the event a secretary wishes to learn how his or her efforts are being received, he may, at any time, take one of the rating forms to his faculty supervisor and ask for an informal accounting of strengths and weaknesses. It is thought that this will be especially helpful to the student who has not had previous experience in an office."

## EVALUATING SUPERVISORS

Students apparently possess an insatiable desire to be "fair." This certainly seems to be true of the 10 student members of the work committee. In 1955 the students on this committee decided to turn the tables and ask their supervisees to comment on the following traits as they may or may not be possessed by the student managers: ability to deal with workers without bias, willingness and helpfulness in explaining how a task is to be performed, command of respect, fairness in work assignments, willingness to consider new ideas, general capacity to hold such a position.

## DISPOSITION OF GRADING SHEETS

In every instance the student receives a copy of the evaluation made. (The report comes to him in the envelope that contains his academic grades.) As shown in Figures 1 and 2, the forms in use at present call for comments on each of several traits. These comments are intended to be helpful to the student, the assumption

Fig. 1: Grading sheet used by student manager to evaluate student employee.

BLACKBURN COLLEGE CARLINVILLE, ILLINOIS WORK OFFICE	
WORK GRADE	
NAME OF STUDENT	Brandt, Paul
POSITION HELD	Lunch Crew
QUALITY AND QUANTITY OF WORK	Above average.
ATTITUDE TOWARD WORK AND SUGGESTIONS	You have a genuine interest in your own work and in the kitchen as a whole.
RESOURCEFULNESS AND RELIANCE	You are able to make decisions and can be relied upon to carry them out.
ATTITUDE TOWARD CO-WORKERS	Your cooperation is very good.
PERSONAL APPEARANCE	Good
GENERAL ADAPTABILITY IN POSITION	You are well adapted to kitchen work and you are already becoming a valuable asset.
REMARKS	I'm sure you are capable of honor work, Paul, but you have been in the kitchen such a short time I couldn't be perfectly sure.
EVALUATION	Excellent.
NAME OF PERSON FILLING OUT THIS WORK GRADE:	
Jack Myers	
DEPARTMENT: Kitchen	
DATE: November 10, 1956	

being that there is always an obligation to help the student perform more acceptably.

Office workers receive a copy of the evaluation made by their supervisor. Each student manager receives the evaluation sheet from each of the persons he supervises. Signatures are optional on the grading sheet for student managers.

One copy of each supervisor's report goes into the official college record. Prospective employers, as well as scholarship donors and others, frequently ask for this information. It is invaluable in writing recommendations for students who have attended Blackburn.

#### DOES NOT EMPHASIZE SKILLS

It is conceivable that a system for evaluating student work would emphasize the degree of skill possessed by a given student. Some information of this kind is gathered in preregistration mailings, but subsequent evaluation is quite general. For example, comment is requested concerning the quality and quantity of work produced in a working period. Comment also is requested concerning the knowledge the student demonstrates for the task to which he is assigned. These are the only references to demonstrated skills.

This emphasis reflects the following general attitudes toward student employees which it is well to note:

1. Students are seldom expected to enter college with highly developed skills.
2. Students are frequently assigned to tasks that do not require the highly skilled workman.

3. Persistence, thoroughness, willingness to accept responsibility, and so forth assume relatively great significance in view of items 1 and 2.<sup>2</sup>

It is our policy to dismiss a student employee only as a matter of last resort. Thus it becomes necessary to establish procedures for dealing with those whose work approaches an unsatisfactory level. In the event that such a problem arises, the procedure is as follows:

1. The most immediate supervisor advises student that his work is unsatisfactory and suggests how performance can be improved.

<sup>2</sup>It is not meant to imply that students are incapable of learning to perform highly skilled tasks. For example, at Blackburn the superintendent of new construction trains student masons, carpenters, electricians and plumbers. Students constructed the F. W. Olin Science Building dedicated on Feb. 13, 1957.

NAME (OPTIONAL) _____	
WORK HEAD WORK MANAGER	DEPARTMENT <u>Men's Work Manager</u>
MEN'S WOMEN'S	
ABILITY IN HANDLING WORKERS AND TREATING THEM ON AN EQUALITY BASIS. <u>I have neither heard nor have any personal</u> <u>complaints about your playing favorites. From what I have observed you are very</u> <u>fair in this respect.</u>	
WILLINGNESS AND HELPFULNESS IN EXPLAINING A JOB. <u>I have had little contact with you in this respect</u> <u>due to previous experience in my present work.</u>	
COMMANDS RESPECT WITHOUT OVERUSING AUTHORITY. <u>I believe you command respect by being your well</u> <u>liked self rather than through the use of authority.</u>	
FAIRNESS IN WORK ASSIGNMENTS AND COOPERATION IN ARRANGING PREFERENCES. <u>In my case you have been most coopera-</u> <u>tive since I have requested work changes to accommodate basketball practices and</u> <u>received them.</u>	
WILLINGNESS TO CONSIDER NEW IDEAS. <u>I am unaware of any new ideas which have</u> <u>been suggested, but I do feel you would give them due consideration.</u>	
CAPABILITIES TO HOLD SUCH A POSITION. <u>You are with little doubt the (or one</u> <u>of the) persons on campus most qualified to handle the position. You have the</u> <u>scholastic standing and the close contact with the student body which are</u> <u>necessary to make this position a success.</u>	
A FINAL EVALUATION. <u>As a final evaluation I would like to say you are doing</u> <u>an excellent job and will have made contributions to the work plan in general</u> <u>as well as to the office by the end of the year.</u>	
PLEASE WRITE BELOW ANY COMMENTS OR SUGGESTIONS YOU HAVE CONCERNING THE OVER-ALL WORK PROGRAM AND COMMITTEE OR POLICIES FOLLOWED SO FAR THIS YEAR. <u>I feel the kitchen is the weakest department and needs an enforcement of</u> <u>departmental rules. In general, I feel the work plan as a whole is running</u> <u>quite smoothly.</u>	

Fig. 2: Grading sheet used by student employee to evaluate student manager.

2. If no improvement is observed, the supervisor reports the situation to the work manager. The two of them decide how best to approach the problem, short of the application of sanctions, and proceed to implement the approach according to their judgment.

3. If no improvement is observed, the supervisor may apply sanctions. These sanctions are codified and contain limitations. The sanctions are matters of general knowledge to manager and managed alike.

4. If no improvement is observed, the situation is called to the attention of the work committee. At this point, the committee recommends to the supervisor and the work manager. Recommendations may vary from application of additional and/or different sanctions to a change of assignment.

5. If no improvement follows, the

work committee recommends, this time to the faculty committee on student status, that the student be dropped from the college.

This set of procedures is not reproduced as a suggestion to others concerning content, but rather to point out a way to facilitate the work of supervisors who must set standards for their employees. It might also be well to note that it has seldom been necessary to proceed beyond Step 4.

Most students are highly motivated to obtain favorable work reports. It is important to them that the work record merits a notation in the permanent record they are accumulating at the college. Those who do the grading find it a difficult task, but not once has anyone considered abandoning the procedure. Regular and systematic evaluation is felt to be desirable. #



Changes in layout, sales methods,  
and accounting controls lead to

## Efficient Bookstore Management

J. F. MESSER and O. D. TURNER

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AS COLLEGES AND UNIVERSITIES experience substantial increases in enrollment and anticipate even greater increases, the possibilities for introducing improved procedures and for utilizing present facilities more effectively need to be explored.

An example is afforded by the recent modification of the bookstore at the University of Wyoming. The only bookstore serving the needs of approximately 3000 students, faculty and various departments, it is operated by the university.

Although the bookstore operation had been successful for many years, several problems arose to cause the administration to review the operation. A major problem was the time required for students to get textbooks and supplies at the beginning of each semester. It usually took from one to two weeks, even though the store remained open 12 to 13 hours a day during registration periods. Other problems involved the control of cash and inventory and the development of accurate monthly financial statements.

Confronted with the high costs of new construction and with a desire to provide more adequate service to students, as well as to increase the efficiency of operations, the administration retained us to make an intensive study and to submit recommendations with respect to physical layout, sales procedures, and accounting controls.

The proposals contained in our report have been placed in effect. As a result, the store is rendering better and faster service and its operation has become more efficient. A considerably larger student body can be served without an increase in facilities. Following is a brief account of the steps taken in the project and some of the results.

Figure 1 shows the physical layout of the store at the time of our study.

Limitations are apparent. The fixed counter, *A*, effectively limited customer service space to Area *B*, 334 square feet. All textbooks, supplies and other merchandise were stored in shelves and cases, *C*, behind the counter. Fountain pens, pencils and miscellaneous items were sold over Counter *E*. The large room, *D*, in the rear was used for storage, as was a mezzanine floor.

During registration periods, Area *B* was congested with customers from the time the store opened until it closed. Some 13 or 14 clerks worked behind the counter, serving one customer at a time. This involved considerable walking, searching and reaching on the part of each clerk, as most customers bought a number of items shelved in various parts of the store. Moreover, many of the clerks worked only during registration periods and were unfamiliar with the merchandise and its location.

The layout we recommended involved removal of the fixed counter, purchase of new display equipment, installation of check-out stands, and a rearrangement of storage facilities. Figure 2 shows the modified layout as it is arranged for "rush" periods at the beginning of each semester. A comparison of service area and display space before and after the modification is as follows:

Comparison of Service Area and Display Space  
Before and After Modification

	Before	After	Increase
Customer service area (sq. ft.)	334	1202	360%
Display space (lin. ft.)	80	387	500%

The increase in merchandise display space actually exceeded 1200 per cent if the space afforded by showcases, counter top displays, and back-wall displays is considered.

Equipment for the new layout was purchased with the idea that it be flexible and yet attractive. The back-

wall fixtures (*X*) are built in sections and can be moved easily. The unit counters (*Y*) can be arranged in any number of combinations and display racks may be installed on top. The gondolas (*Z*) display merchandise on each side and are moved easily. The glass showcases (*W*) also are moved easily, as are the check-out stands and the greeting card cases. The textbook shelves, of metal, are the old ones.

The fixed counter in Figure 1 was moved to the rear stockroom where it has become a shipping and receiving counter. The metal shelves in the stockroom were formerly used for textbook storage.

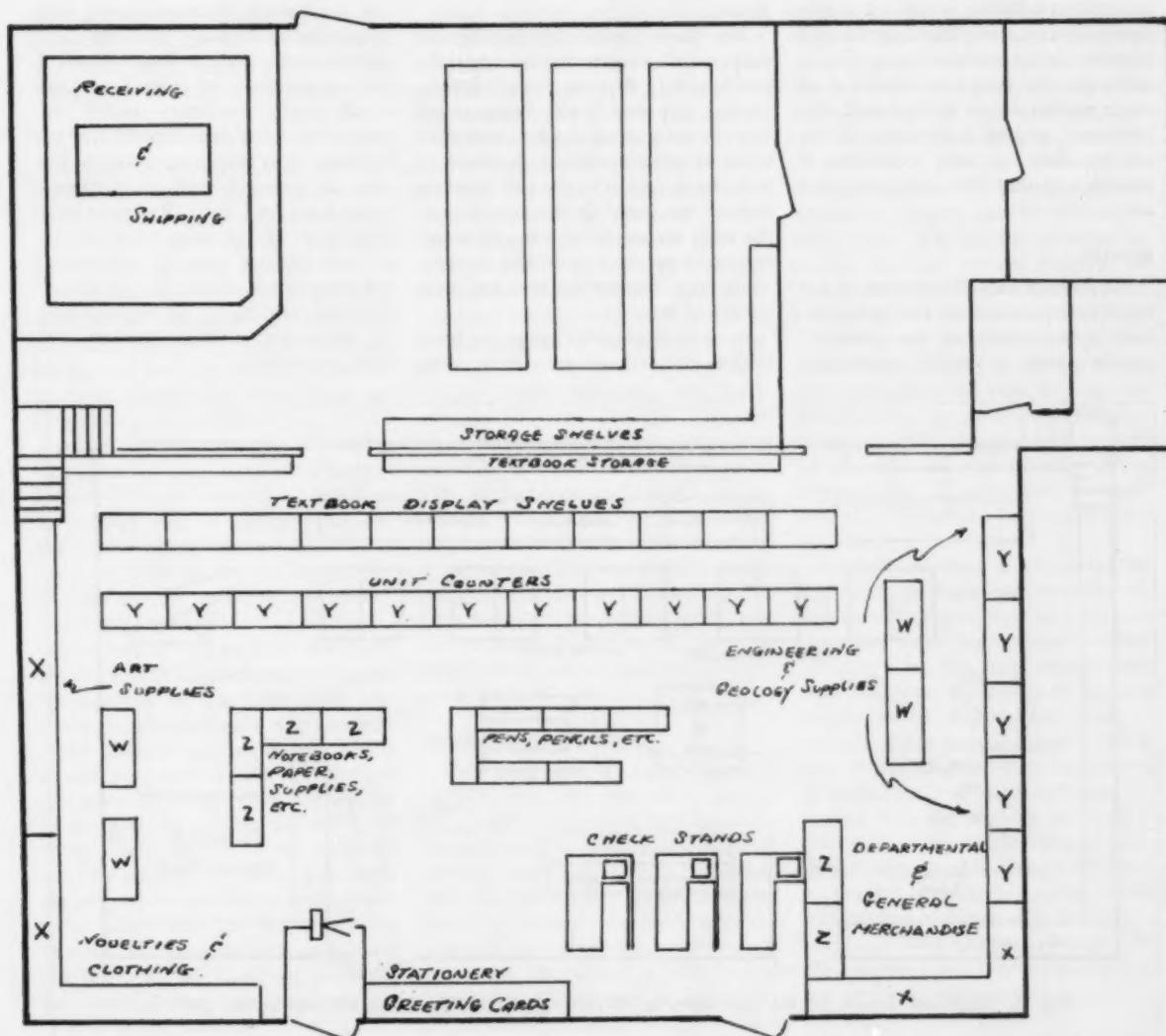
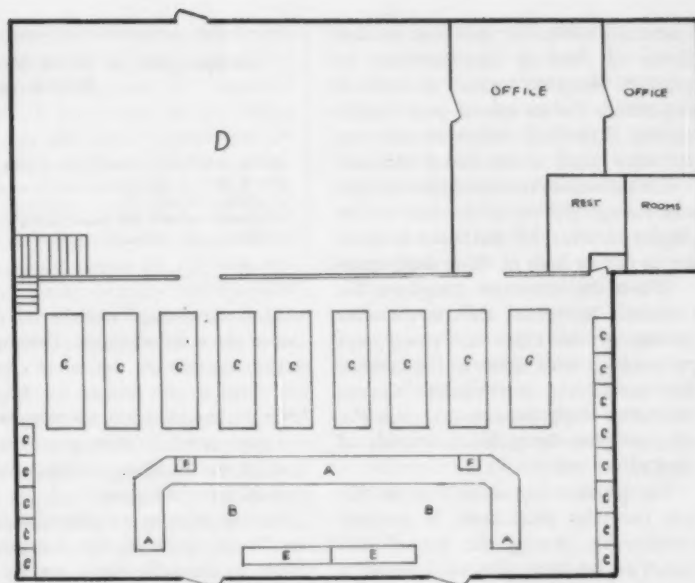
### SALES PROCEDURES

A "clerk assisted" self-service sales system was instituted at the same time that the layout was modified. At registration or "rush" periods clerks are assigned to various stations throughout the store to assist the customer. As the latter enters, he picks up a sales ticket at the door, selects the merchandise he wishes to purchase from the display racks, and a clerk enters the item and amount on the ticket. For purposes of inventory control the ticket is divided into two categories, textbooks and supplies. At registration periods all books are sold over the counter. The books

are classified by colleges and academic departments, and a single clerk is responsible for the sale of the textbooks for one or two courses only. A list of required materials for each course offered by colleges hangs on the shelf to assist her in filling the order. If the  
(Text Continued on Page 34)



Fig. 1 (right) is the original layout of the bookstore at the University of Wyoming. Fig. 2 (below) shows the modified layout of the bookstore as it is arranged for "rush" periods at the beginning of each semester. The increase in merchandise display space actually exceeded 1200 per cent if the space afforded by showcases, counter top displays, and back-wall displays is considered.



customer wishes to purchase several books of different classifications, he proceeds along the counter to the clerk responsible for the sale of each classification. Each clerk makes an entry on the sales ticket as she makes the sale.

The shelves are restocked from perimeter storage shelves at the rear of the display shelves. All textbooks in stock are in one or both of these shelf areas.

When the customer completes his purchases he carries the merchandise to one of the check-out stands and presents his sales ticket to the cashier. She checks the merchandise against the ticket, totals the amount, rings the sale, and gives the customer a validated copy of the ticket.

The physical layout, and to an extent the sales procedures, is changed considerably during the periods between registration. Figure 3 shows a typical arrangement of the fixtures during such a period. All merchandise, including textbooks, is sold on a self-service basis, accomplished by the unit counters being arranged into display units, and the showcases turned at an angle so that access to back-wall displays and shelves is possible. Clerks are on duty to help customers if needed, and they also enter purchases on the sales tickets.

#### RESULTS

To measure the effectiveness of the modified layout and the new sales procedures, a comparison was made of certain aspects of the fall registration

Comparison of Sales Made During Six Days of Rush Period Before and After Modification			
	Before	After	Increase or Decrease %
Dollar sales .....	—	—	+ 43.3
Hours open .....	76	54	- 40.7
Customers served .....	3,599	5,140	+ 42.8
Customers served per hour.....	47.3	95.2	+ 101.2
Purchases per customer .....	—	—	(+ 5c)

prior to the changes and the fall registration after the changes. During the earlier registration the store capacity was taxed to the utmost for 12 days. After the modification, there were only two days in which store personnel believed it was handling all the customers it could serve adequately.

Because of certain differences in the two "rush" periods, the comparisons shown in the table above are for only six days of each period, these being the six days of greatest sales in each period.

The "rush" lasted only six days in the year following modification, as compared with 13 days the preceding year. During that time it was demonstrated that the store could handle more than twice as many customers per hour as it formerly had. On the two heaviest days of the "rush" in the second year, the store served three times as many customers per hour as it had the previous year. Student reaction has been extremely favorable.

Another important change has been in the attitude and morale of store

employees. Proud of the new fixtures, they take greater interest in arranging displays, and they no longer dread registration periods. The administration feels that the bookstore can serve the needs of a much larger student body. Moreover, the modification was accomplished at reasonable cost.

#### MANAGEMENT CONTROLS

In addition to improving the physical layout and modifying the sales procedures, we recommended strengthening the control of management over operations in certain vital areas. The control over cash has been tightened and responsibility for it has been fixed at all points. Inventory control and procedures have been established to facilitate purchasing, to increase the rate of turnover, and to minimize losses from dead stock. Revisions have been made in the accounting records so that accurate monthly statements, reflecting financial condition as well as operating results, can be obtained and the information contained therein carefully interpreted.

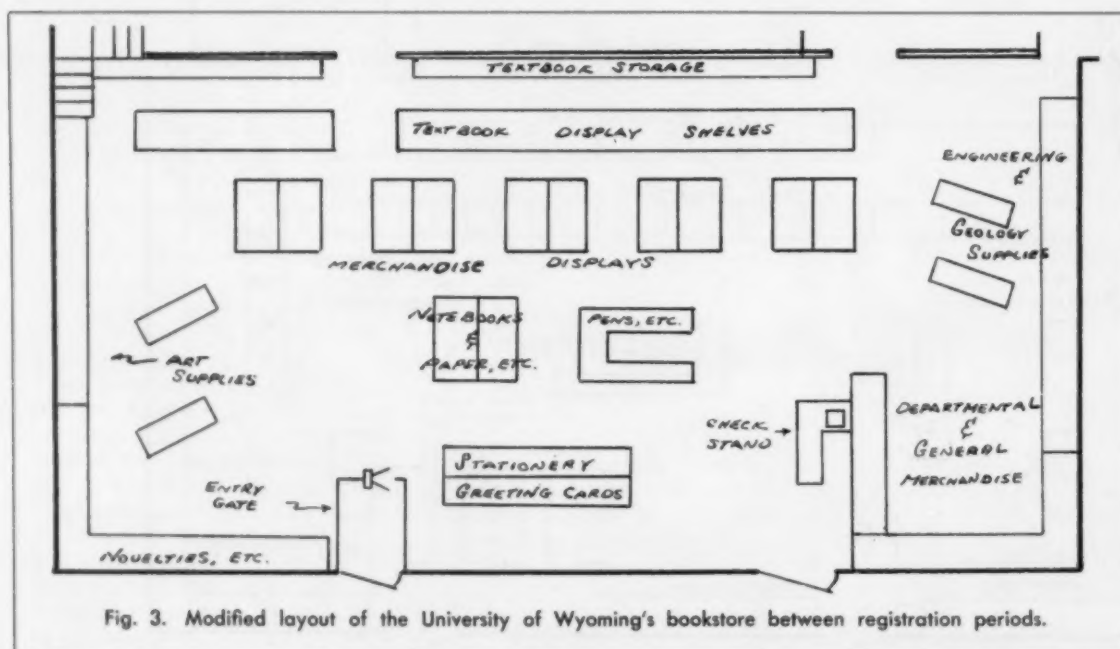


Fig. 3. Modified layout of the University of Wyoming's bookstore between registration periods.

Three cash registers, capable of recording cash and charge sales separately and accumulating seven other totals, were purchased. Two registers might have been adequate, but three were used so that the students could be served more quickly. Registers have two cash drawers so that two persons may use a register without intermingling the cash. The registers are reconciled daily to determine overages and shortages for each cashier. If there are serious discrepancies, the register tapes are compared with the validated sales tickets so that the errors may be attributed to either the improper operation of the registers or an inability to make change accurately.

As indicated, the sales ticket is used primarily to facilitate pricing and the flow of traffic. The use of the ticket does permit a control over cash not normally present in a self-service operation, and, even when there is no great discrepancy, the register tapes are reconciled with the sales tickets periodically to be sure that all items are being properly rung by the cashiers.

#### INVENTORY CONTROL

Because of its magnitude and the possibilities for loss from the accumulation of dead stock, inventory received particular attention in the establishment of management controls.

A storage plan has been initiated whereby all fast moving items are physically segregated, and a receiving system has been installed in order to check all receipts against purchase orders and invoices. The emphasis, however, has been placed upon reviewing the inventory more frequently, largely by an increased number of physical inventories, and by obtaining the cooperation of academic department heads in analyzing the inventory, particularly that for textbooks and related course supplies.

*Textbooks.* All requests for textbooks by individual instructors have to be approved by the appropriate academic department heads, who carefully review the quantities requested, as well as any proposed changes. A physical inventory of all textbooks and related course supplies is taken at least three times a year. Copies of the pertinent sections of each of these inventories are distributed to the various department heads for review and those titles that should be returned are so marked. All books for which return privileges are available are then promptly returned by the bookstore.

*Supplies.* Control over supplies probably is more difficult than control over textbooks. We placed the emphasis upon the improvement of purchasing procedures and upon frequent review of the stock on hand. Physical inventories are taken twice during the year, and commodity cards have been established for each supply item. These cards contain spaces for the item and its description; primary and alternate vendors; discounts, if any; and columns for the inventory quantity at any date; amounts on order; invoice costs, and retail price.

Such cards, while not requiring the time of perpetual inventory records to maintain, assist greatly in the control of the supplies inventory by indicating the turnover and by providing a basis for reorder in proper quantity. They also furnish a record of goods on order as well as a record of shipping lag time.

*Retail Method.* Additional control was established over inventory when the retail method of inventory valuation was installed. Used widely in retail stores to estimate inventory and to control it more effectively, the retail method requires that records be maintained at both cost and retail. The control feature which the retail method provides, of course, is that the physical count at retail should compare closely with the calculated amount at retail.

Some shrinkage from theft, breakage or handling is to be expected, and varying rates of markup may contribute to the variation. Any large discrepancy, however, would suggest errors in the taking or extension of the inventory or excessive shrinkage from theft or handling and should be investigated carefully. The method also permits the estimating of the inventory at any time without a physical count being taken, thereby facilitating the formulation of purchasing policy and the preparation of interim financial statements, a further basis for management control.

#### FINANCIAL STATEMENTS

Two statements are being prepared monthly from the accounting records—a monthly and year-to-date statement of profit and loss, and a statement of current assets and current liabilities. The first reflects the results of operations and corresponds closely with the generally accepted form of income statement. The second is indicative of financial condition and is similar to the customary balance sheet; but since

there are no long-term liabilities and less emphasis is placed upon fixed assets than in the ordinary commercial enterprise, it has seemed desirable to limit the statement to current assets and current liabilities. Such a statement does emphasize cash and accounts receivable as well as inventories and also shows the liabilities for accounts payable and taxes.

Throughout, the statements are supported by detailed analysis so that the significance of the information may be interpreted correctly. Particular attention is given to the size of the inventory, the rate of inventory turnover, the percentage of gross margin, and the relationship of salaries and other operating expenses to net sales.

#### RESULTS

The results of the imposition of the accounting and management controls have been gratifying. Overages and shortages of cash have been negligible, whereas discrepancies often were great when responsibility was not fixed. The level of inventory has been reduced by approximately 30 per cent, and the rate of inventory turnover increased by 25 per cent. Losses from the accumulation of dead stock have been virtually eliminated, largely because of faculty cooperation. The amount of working capital has been greatly reduced, of course, and the pressure for increased storage space alleviated.

The use of the retail method has caused little difficulty and relatively little increase in the time required for bookkeeping. It has proved very accurate and, while an estimated amount for shrinkage has been included in the computations, the variation between estimated and physical inventories has not exceeded 1 per cent.

Problems involved in accounting for discounts, markups and markdowns, and recording purchases at both cost and retail have been solved without difficulty. In fact, the arrangements have simplified the taking of physical inventories as they can be taken at marked selling prices and converted to cost without the necessity for referral to individual costs and invoices, or for dealing with the problem of identical merchandise acquired at different costs.

The administration appreciates the availability of accurate monthly financial statements shortly after the end of each month. Undoubtedly, these various controls have contributed much to the increased efficiency of the university operated bookstore. #

## **Auditors Aid Administration**

### **6—Accounting for Staff Payroll**

**A. E. MARIEN**

*Internal Auditing Division  
University of Illinois*

THE SUPERVISOR OF PAYROLL OF A university notified the auditors that seven monthly staff payroll checks remained undelivered at the "will-call" payroll window; check disposition forms for these checks had not been filled in by the payees.

Check disposition forms constituted one of the built-in controls maintained by the bursar of this particular institution on monthly payments. Of course, the two most important controls on staff payroll are properly approved appointment papers and the current budget. In the check disposition control, each payee chooses at the beginning of each fiscal year one of the four possible methods for the delivery of his checks, provides the written means for carrying out the method chosen, and dates and signs the form.

The four methods of check disposition are: to the payee's bank, to his home, to his private or departmental office, or to him personally at the payroll window. If a properly executed form is not received for a staff member, his first check for the school year is placed for delivery at the payroll window so that he may have the opportunity of filling in a check disposition form when he calls in person for his payment.

Some different kinds of staff payroll audits are: check delivery, departmental confirmation of payroll vouchers, verification of a departmental or college payroll, confirmation of net earnings by telephone contact, and check endorsement examination. In the verification of a departmental or college payroll, the primary consideration is to establish by means other than check delivery "on the job" that a staff member listed on the payroll for a department or college either is performing services for the university or is on a leave of absence. This

may be accomplished through contact in person and by reviewing such records as departmental or college class schedules, work-assignment sheets, staff directories, and the auditors' file of current board-approved leaves of absence.

The investigation requested fitted more nearly "check-delivery" than other types of payroll audits. A common example of a staff payroll delivery is the passing of will-call checks. These checks are the ones regularly delivered through the payroll window. A typical audit procedure for a staff payroll delivery is as follows:

1. Control the checks to be delivered, preferably just after they have been initially prepared. In some cases, this may not be possible and a later point of control may have to be chosen.
2. Observe and verify the work necessary to be done on the controlled checks before they are considered to be fully processed for delivery. For instance, each check must be ticked off against its check disposition form. Also, certain check withdrawals may be made by the bursar because of a payroll advance, or because of a resignation which was either too late itself or processed too late to stop the payment. Verify check withdrawals.
3. Deliver the checks and obtain signed payroll receipts for them. Compare each signature preferably with the payee's signature on his staff identification card at the time of delivery, or with the payee's signature on his governmental loyalty affidavit or W-4 tax exemption form at a later date.
4. Locate each payee in the budget and determine his monthly rate from the stated annual salary.
5. Compare the auditors' calculation of monthly salary rate for the staff member to the bursar's calculation as

it appears on the payee's authorization card.

6. Establish the existence of properly approved appointment papers for each payee.

7. Compare the gross earnings on each check with the voucher amount and then with the monthly salary rate as determined by the bursar and the auditors. In cases where overtime is allowable, such would have to be taken into consideration. Follow up on differences, if any.

Payroll deductions for retirement and federal income tax are automatically calculated and "tied out," of course, by punch card tabulating machine processes. In instances in which the auditors know a payee, personal identification or contact of a staff member may be omitted from the audit procedure. Any vacation or sick-leave credits used by the staff members who, by administrative policy, accumulate them are traced to departmental vacation and sick-leave records.

It was felt that for the investigation of the checks which the bursar had moved to the payroll window for will-call, an additional audit procedure should be performed. The added step was to trace all resignations and declinations effective the beginning of the school year that were reported in the minutes of the board of trustees to the payroll vouchers involved to verify that the resigners did not appear in them. Explanations were then sought for any resigner who appeared in a voucher. For instance, a staff member might first have resigned and then later accepted or he may have been reappointed, or the declination may have been processed either late or faultily.

Through the assistance of the auditors, the check-disposition-form procedure successfully disclosed whether a payment had been made to a staff member no longer associated with the university. The circumstances behind the seven undelivered academic checks were thoroughly investigated; reasons were determined for the nondelivery of all of them. The seven checks then were properly disposed of. For instance, one of the reasons for nondelivery was the failure of the payee to fill in his check disposition form because of illness. In these cases, the auditors personally delivered the checks and helped the payees fill in check disposition forms. The auditors felt that, besides aiding administration, they were serving staff members. #



THE HANDLING OF STUDENTS' ACCOUNTS receivable can be done in such a haphazard manner that the effectiveness of the college training program as well as its financial resources will be affected.

Collection policies are an important factor in the realization of the income budgeted from students. A strong collection policy lessens uncollected accounts; a weak collection policy increases them.

Recently I made a survey of the practices and policies in the handling of students' accounts in 20 small colleges selected at random. Seven were supported from private funds and 13 from municipal or state funds. The geographical range was as wide as possible, but the colleges approached are generally considered small. There was a 100 per cent return of questionnaires.

Responses came from seven private colleges: one each in Alabama, Illinois, Pennsylvania, South Carolina and Virginia, and two in Minnesota. From public colleges came 13 responses: one each from Arkansas, Florida, Kansas, Louisiana, Maryland, Missouri, Nebraska, New Mexico, Ohio, Oklahoma, South Dakota, Texas and Virginia.

Of the seven private institutions, six had enrollments between 1000 and 2000; the seventh was in the 500 to 1000 category. Of the 13 public institutions, one had from 500 to 1000 students; nine, from 1000 to 2000; two, from 2000 to 3000, and one from 5000 to 6000.

#### TWO QUESTIONS ASKED

Two questions were asked in regard to deferment of payment: whether permission to defer payments during the school year is given and whether permission to defer payments beyond the school year is granted. Among both private and public institutions, the general tendency was to permit deferment of payments during the school year. However, the tendency to permit deferments beyond the school year was not so pronounced.

All the private colleges permitted deferment of payment during the school year, and 48 per cent of them permitted deferment of payment beyond the school year. In the case of public colleges, 69 per cent of them permitted deferment during the school

From a paper presented at the 18th annual meeting of the American Association of College and University Business Officers, Hampton, Va., 1957.

## Some Collection Policies of Selected Small Colleges

JAMES B. CEPHAS

Treasurer-Controller  
Virginia State College, Petersburg

year and 15 per cent permitted deferment of payment beyond the school year. For all schools combined, approximately 80 per cent permitted deferment of payments during the school year, whereas only 25 per cent permitted deferment of payments beyond the school year.

Private colleges tended to be more lenient with respect to deferment of payment than did the publicly supported colleges. The difference between the percentages permitting deferment of payments during the school year and beyond the school year were 31 and 33, respectively.

The reasons for this apparent greater leniency on the part of the private colleges are not obvious from the data at hand. However, the conjecture is that the nature of the private college may account in large measure for this circumstance. The public institution must operate according to state or municipal policy and, from the standpoint of finding it necessary to make strategic accommodations in fiscal policies, it does not have the same kind of pressures exerted upon it that the private school has.

Supported more or less from private contributions, the private college must be more concerned with public relations, particularly with respect to offending potential contributors, however small their contributions may be. Furthermore, state laws and policies do not inhibit the private college from deferring payments in the case of deserving individuals.

From the standpoint of policy regarding readmission of students having unpaid balances from previous years, the private colleges also appear to be more lenient than the public institutions.

Less than 10 per cent of the public colleges readmit students having bal-

ances due from the previous year, whereas approximately 30 per cent of the private schools readmit students having balances due. Here again it seems that a reasonable conjecture is that the difference between the policies of public colleges and of private colleges may be due to the types of pressures and to the greater opportunities for fiscal officers to exercise their own judgments in dealing with individual cases.

#### PRIVATE COLLEGES MORE LENIENT

It must be borne in mind that the bases of the percentages are small. For all schools combined, the proportion of institutions readmitting students having balances due from previous years was less than 20 per cent. Although the private schools were more lenient than the public institutions, the private colleges themselves were not exceptionally lenient in this connection.

One of the private colleges that reported readmitting students having balances due on the previous term made the following comment: "Such a student is readmitted only when he and his parent have signed a note satisfactory to us. This is a rare occurrence."

Assuming that this college is typical, one is led to the suspicion that even among those colleges readmitting students having previous balances the tendency is so weak as to be virtually equivalent to refusing admission to students whose accounts show balances from a previous year.

A defensible generalized conclusion is that on the whole the institutions, both private and public, do not readmit students having balances due from previous years. This is not surprising since, obviously, it would be unsound fiscal policy to permit large

numbers of such students to re-enroll when they have balances due from previous years.

Although a larger proportion of the private colleges permit the taking of final examinations when a balance is due on the current term than is the case with public colleges, the difference between the percentages, considering the small bases of the percentages, seems to be virtually negligible. Of the private schools, 57 per cent, and of the public schools, 46 per cent, report that they permit the taking of final examinations under this circumstance. For all schools combined, one-half permitted taking the final examination when a balance was due on the current term and one-half did not. This policy seems not to be inconsistent with policies respecting deferment of payment and readmission of students having balances due from previous years.

There is equal division among the 20 colleges concerning the policy of permitting students to take the final examinations when a balance is due on the current term. Among the private colleges, four permit the final examinations to be taken, whereas three do not. Among the public colleges, six permit the taking of final examinations and seven do not.

After hearing the pros and cons on the subject of refusing students the privilege of taking final examinations when they have account balances, I am inclined to take a stand with those who refuse such permission.

#### DO NOT ISSUE TRANSCRIPTS

None of the public institutions issued transcripts of students' records if there was a past due balance on the account. However, two of the seven private colleges released transcripts when there was an outstanding balance due on the account. One private college that followed this practice made a qualifying statement: "We do not release transcripts if there is any amount due from the student unless satisfactory method of repayment of the amount has been arranged."

It might be concluded from the evidence presented that schools generally do not release transcripts when there are account balances. Some exceptions to this rule were noted in that these colleges will release transcripts to prospective employers in the case of seniors who have just graduated with account balances in order not to deny them opportunities for employment.

In facing the problem of what to do with currently enrolled students who are delinquent in their accounts, among the private colleges 71 per cent require the withdrawal of students with delinquent accounts; 29 per cent do not require students with delinquent accounts to withdraw. In the case of public colleges, there was almost a complete reversal of policy in this regard.

It probably is true that experience in collecting delinquent accounts largely determines the policy of the college in this regard. The following statement from one of the schools answering the questionnaire is of interest in this connection: "We do not have a hard and fast regulation that requires a student to withdraw if his account becomes past due. Each case is considered on its merits, and it has been our experience that losses resulting from extension of time are justifiable, and practically nil."

Among the seven private colleges polled, six rendered bills or statements of account. Nine of the 13 public colleges rendered bills or statements of account to students, three did not, and one did not answer the question.

#### RENDERING STATEMENTS

Information on the frequency of rendering statements of student accounts indicates that among the 15 colleges that answered the question 47 per cent rendered monthly statements, 27 per cent rendered statements quarterly, and 26 per cent did not have any fixed interval or period but rendered them at the convenience of the office.

Fifty per cent of the private colleges and 47 per cent of the public colleges rendering bills send them to the students only. Fifty per cent of the private colleges and 56 per cent of the public colleges rendering bills send them to both students and parents.

The soundness of the practice of rendering statements to students is apparent from a statement by John Dale Russell,\* who writes: "College students are generally considered sufficiently mature to handle finances that are required for institutional attendance. In fact, the handling of his own personal finances is one of the important bits of incidental education in the student's college life."

It is the practice among some col-

leges to bill the students' accounts for miscellaneous charges, such as library fines, laboratory fees, and health service charges. Where this is done, it is difficult to maintain a sound collection schedule unless the student is notified of the exact amount of the charge at the time it is entered on his account.

#### CONCLUSION

The nature of collection policies is related to whether institutions have unpaid accounts at the end of the school year. Among the seven private institutions, six reported having unpaid accounts at the end of the school year. Among the 13 public colleges, nine reported having unpaid accounts at the end of the school year. For the 20 institutions combined, 15 reported having unpaid accounts at the end of the school year.

Obviously, the leniency of collection policies is reflected in the proportion of accounts that are unpaid. Among the private institutions, the percentages of unpaid accounts varied from 0 to 2 per cent. In public institutions the percentages of unpaid accounts varied from 0 to 5 per cent. The percentages of unpaid accounts typical of private and public institutions were 1 per cent and 5 per cent, respectively.

From the results of this investigation, it is obvious that private schools generally are more lenient in their collection policies than are schools supported from public funds. The greater leniency of private institutions is manifested in policies relating to deferment of payment, readmission of students, privilege of taking final examinations, and the release of transcripts when a balance is due the college. In some instances of infrequent occurrence, policies so lenient as to be questionable from the standpoint of good educational practice and sound fiscal management were observed.

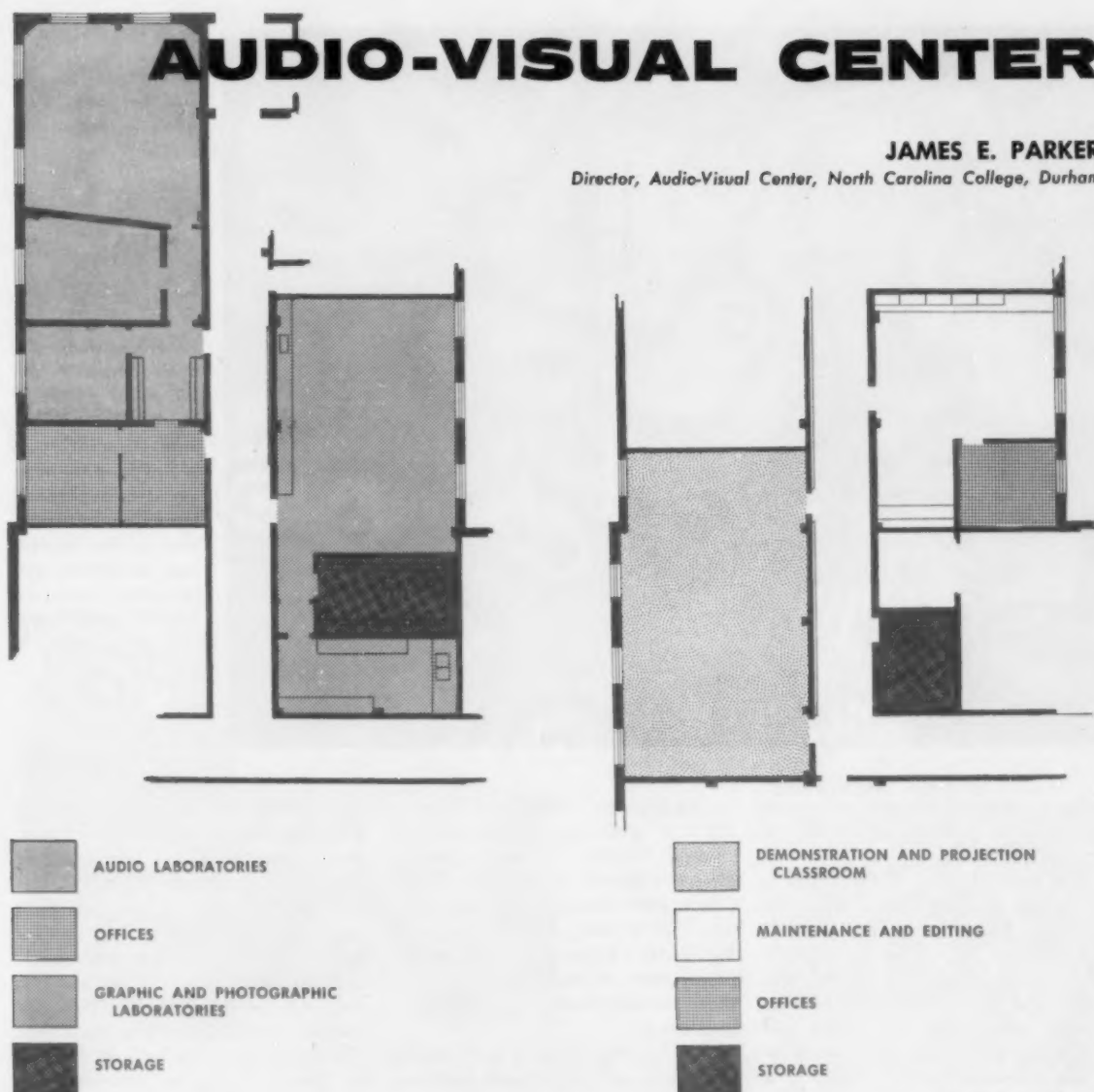
The other extreme of leniency with respect to collection policies is manifested in a few institutions which report having no unpaid accounts, or virtually none, at the end of the school year. The fact of having unpaid accounts at the end of the school year and the proportion of net charges unpaid also are indicative of the greater leniency of private institutions as compared with public institutions. The conclusion that, in spite of some weaknesses in policies, as a whole the institutions studied follow collection policies that are sound seems to be a reasonable one. #

\*Russell, John Dale: *The Finance of Higher Education*, University of Chicago Press, 1934, Rev. Ed., p. 211.

# AUDIO-VISUAL CENTER

**JAMES E. PARKER**

Director, Audio-Visual Center, North Carolina College, Durham



Drawing by Edward Wilson Jr.

THE AUDIO-VISUAL CENTER AT NORTH Carolina College is a centralized pool of audio-visual materials, facilities and services. Its location in the administrative organization is such that all departments of the college have equal access to its materials, facilities and services. The director is responsible to the president of the college through an audio-visual committee appointed by the president.

Courses offered in the audio-visual center count as education, thus the staff is responsible to the department of education, through the director, for all courses in audio-visual education that are offered for credit.

The work of the center encompasses four areas of concern: (1) instruction, (2) services, (3) production, and (4) research and publications.

*Instruction.* This embraces all courses offered for credit.

*Services.* This area provides for locating appropriate audio-visual instructional materials for teachers, requisitioning these materials, and providing for their projection or other use for all college classes. Consultative services are provided for students, teachers and community groups. The center assumes responsibility for maintenance of audio-visual equipment, for the preparation of student identifica-

tion cards for the college, for filming athletic events, and for providing laboratory experiences with audio-visual materials and equipment for student teachers.

*Production.* The center attempts to produce a limited number of audio-visual materials for classroom use; it arranges educational exhibits and displays, and engages in some experimental filming, including magnetic sound movies.

*Research and Publications.* The staff of the center cooperates with teachers and graduate students working on studies and theses dealing with audio-visual materials, prepares periodic bul-





Recording studio and control room in audio-visual center at North Carolina College. Control room is equipped for making and duplicating tape recordings, making disc recordings, monitoring and recording from an AM-FM radio tuner.

letins to promote effective utilization, and prepares quarterly reports of the services provided.

The physical plant of the center is in the new centrally located Education Building. Every square foot of space was planned for a specific purpose: offices, audio-laboratories, graphic materials and photographic laboratories, storage, maintenance and editing, and a demonstration-projection classroom.

The audio-laboratories consist of a recording studio, a control room, a sound lock, a listening room, and a recordings library. The recording studio and control room occupies 772 square feet of space. The studio has non-parallel surface—the wall separating it from the control room is not parallel to the opposite wall and the ceiling is inclined so that it is not parallel to the floor. Ceiling and upper walls are of a special acoustical material; wood paneling of American walnut extends up 36 inches from the floor.

Because it was not possible to provide air conditioning for the studio, windows of a heat resisting glass have been installed and proved to be remarkably sound resisting. The windows have heavy draperies.

In the studio are a piano, a boom microphone, a table microphone, and essential accessories. The control room

has facilities for making and duplicating tape recordings, making disc recordings, monitoring and recording directly from an AM-FM radio tuner. Cost of the installation for both rooms was approximately \$4000. A consulting audio engineer assisted in the preparation of the specifications for these facilities and supervised their installation.

The listening room is equipped for individual and small group listening. It contains a speaker for playbacks from the control room. In addition, portable machines are available for individual use in the room. The recordings library, adjacent to the listening room, has 160 vertical cubicles for storing records. Each cubicle holds at least four albums of 10 or 12 inch recordings.

The graphic materials laboratories are made up of a 21 by 30 foot workroom, a 9 by 21 foot darkroom, and a supply room measuring 9½ by 15 feet. The workroom has a work counter with a built-in storage cabinet underneath; above it is a fume hood with an exhaust fan. This was planned for use in airbrush work and in silk screen work.

Along one wall is another work counter 2 by 22½ feet above a built-in storage space. This gives work space

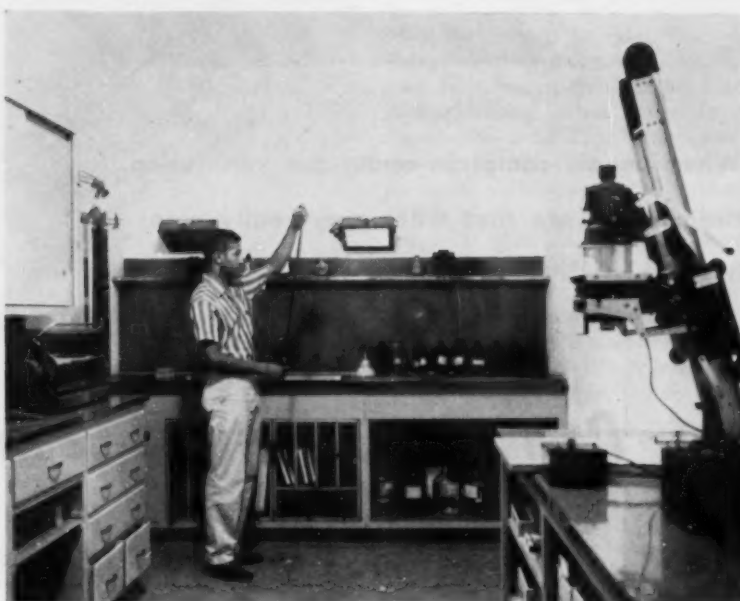
for wet and dry mounting, trimming and similar jobs. Above the counter, which contains a sink with running water, is a corkboard 3½ by 17 feet for use in planning displays. This workroom also doubles as a photographic studio. To equip the photographic darkroom cost \$500, and this does not include the equipment for making student identification cards. The supply room has built-in shelving for storage of supplies, including deep horizontal cubicles for storage of large poster board.

The maintenance and editing room provides for temporary storage and for maintenance of equipment. It has built-in shelving of varying sizes, and at one end, next to a window, is a counter for machine maintenance.

The editing corner has a counter 30 by 60 by 30 inches, and one foot above this counter is a shelf 12 inches wide. Hence, for editing film or editing and binding slides all materials are in easy reach at all times. This room also provides storage space of motion pictures and filmstrips, space for training students to operate machines, and space for students and teachers to preview materials. In addition to the temporary storage space provided in the maintenance and editing room, there is a storage room 16 by 8 feet.



Right: Photographic dark-room is 9 by 21 feet. Adjoining it are a large work-room and a supply room.



The demonstration-projection room is a large size classroom, 22 by 38 feet, equipped for all kinds of projection materials. This room has more than 75 square feet of corkboard space for classroom displays. Special black-out venetian blinds and lightweight plastic black-out draperies provide adequate darkness without shutting out the ven-



Left: Editing and film splicing area, showing also a portion of the film cabinet. Below: The area devoted to maintenance.



tilation. Slide-in paneling is provided along the hallways outside the room for the exhibition of mounted photographs, the work of a photography club sponsored by the center.

#### OPERATIONAL ASPECTS

The materials and services of the audio-visual center are provided for the various academic departments at no cost to them owing to a direct budget appropriation for the center from the college administration. During a recent school year operators and equipment served college classes on more than 600 occasions in which motion pictures, filmstrips, recordings, slides and other types of audio-visual materials were used.

The film library is still rather limited, but the center rents or procures from free sources more than a hundred motion pictures for class use during a school year. Film rentals are absorbed by the center's budget. Film rentals and the purchase of all instructional materials are upon the specific request of teachers.

Exclusive of salaries and equipment, the budget of the center for a recent school year amounted to \$850. This budget covered such items as film rentals, postage, replacements and repairs, and other instructional materials.

Accurate records are kept of the services provided and the number of students served, and quarterly reports are made to the president of the college and to the members of the audio-visual committee. #

When people complain about the ventilation,  
the chances are that what they really want  
is a cooling system

## Designing a Natural Cooling System

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MANY TIMES WE HEAR SUCH EXPRESSIONS as these: "The ventilation in this classroom is terrible." . . . "The air in this lecture room gets foul." . . . "The air in here is stuffy." Frequently expensive ventilating systems are installed in response to such complaints and frequently the department from whose budget the funds came reports the condition unimproved.

Experience and observations lead me to conclude that the trouble lies in lack of understanding and definition. The room occupant who says the air is stuffy or foul usually does not mean that the air is contaminated. What he should say is that it is too warm. The design engineer who is called on to provide ventilation for a room in which the air is reported to be stuffy or foul should be careful to analyze the complaint or request.

Usually what is really wanted is cooling. The decision then must be made whether to cool by "natural" means or by refrigeration. If the space is not used during the summer months, and if an adequate volume of outside air can be introduced, natural cooling will suffice in many cases. What has been called ventilation should in these cases be called natural cooling.

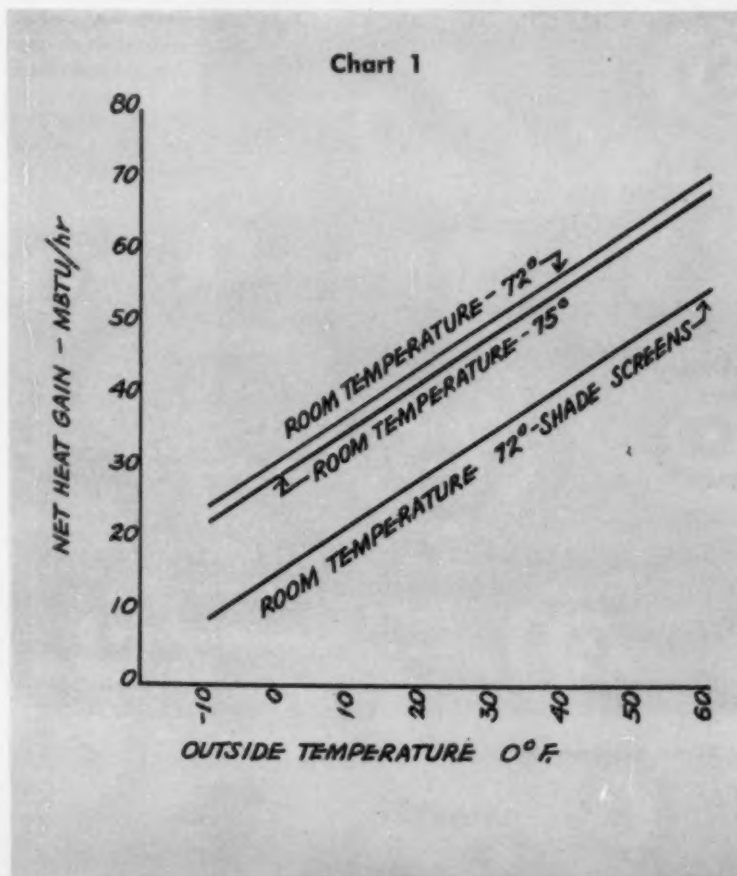
Illustrative of this situation is the following case. In one of our buildings is a lecture room 30 by 50 feet. It has seats for 120 students, the usual occupancy being about 100. A request

for improved ventilation was made by the department dean's office.

The original plans for the building showed an exhaust fan for this room, but for some unknown reason it had not been installed. However, in the attic a large fan supplies tempered, filtered outside air to the lecture room

and to other rooms in the building. The amount supplied to the lecture room is 3900 cubic feet per minute—about 40 c.f.m. per person, or about 12 air changes per hour.

In the request for improved ventilation it was stated that, because the exhaust fan had not been installed,



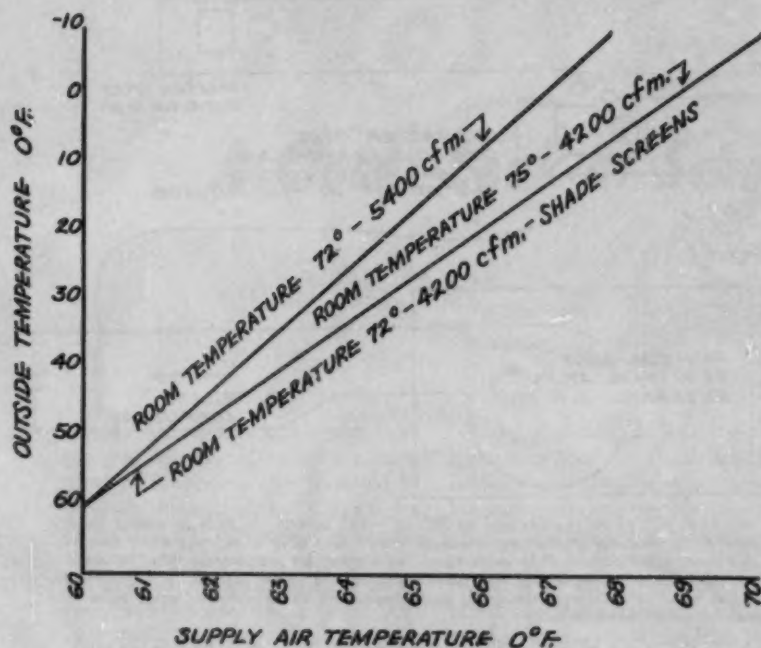


Chart 2

the air in the room, after an hour of occupancy, becomes "foul." Actually the air does not become foul. The quantity of outside air previously mentioned enters the room in spite of the fact that there is no exhaust fan. It finds its way out through louvers in the doors and through a gravity exhaust duct. So with 12 air changes an hour there is no chance of the air becoming foul merely from human occupancy. But the room does become overheated.

A study of the causes of overheating will be helpful in pointing the way to a remedy. Aside from the heat put into the room deliberately by radiation and by heated ventilation air, we have the following additional sources of heat, the sum of which we shall call heat gain, for convenience.

#### Added Sources of Heat in Room

Heat Gain	Btu./hr.
100 people @ 450 Btu. each.....	45,000
3600 watts light.....	12,240
Solar transmission through	
S.E. glass (sun shining—forenoon).....	20,000
Solar transmission through	
S.E. wall (sun shining—forenoon).....	944
<b>TOTAL</b> .....	<b>78,184</b>

Offsetting the heat *gained* by the room is the heat *lost* by the room by transmission through window glass and wall when the outside temperature is below room temperature. The heat loss of the room will vary with outside temperature, assuming fairly

constant wind velocity. The heat gain will be constant assuming that occupancy is by 100 people, that lights are on, and that sun is shining.

The difference between heat gain and heat loss we have called "net heat gain," values of which from  $-10^{\circ}$  to  $60^{\circ}$  outside temperature and for  $72^{\circ}$  and  $75^{\circ}$  room temperature have been plotted in Chart 1. It is interesting to note that there is a cooling load even at  $-10^{\circ}$  when the sun is shining. (The solar transmission is almost constant throughout the year, being slightly higher in winter.) Also plotted is the net heat gain at  $72^{\circ}$  room temperature with shade screens on the windows. Shade screens eliminate almost 80 per cent of the solar transmission.

In designing a natural cooling system for the room, a number of factors must be considered—room temperature to be maintained, total quantity of air to be circulated, minimum quantity of outside air, and maximum outside temperature at which natural cooling will be effective. It is recognized that  $72^{\circ}$  is more desirable for a classroom or lecture room than is  $75^{\circ}$ . The occupants will be more alert. However, if we attempt to maintain  $72^{\circ}$  we are required to supply 5400 c.f.m. of air at  $60^{\circ}$  when the outside temperature is  $60^{\circ}$ , whereas for  $75^{\circ}$  we need only 4200 c.f.m.

It is desirable to be able to circulate the same quantity of air at all times

when the room is occupied. Chart 2 shows how the temperature of the air must be varied to meet the net heat gain at varying outside temperatures from  $-10^{\circ}$  to  $60^{\circ}$ . For a room temperature of  $72^{\circ}$  without shade screens the supply air temperature varies from  $60^{\circ}$  to  $67.8^{\circ}$ . If we attempt to circulate 5400 c.f.m. in this temperature range we will undoubtedly have complaints of draft. A room temperature of  $75^{\circ}$  without shade screens or  $72^{\circ}$  with shade screens requires 4200 c.f.m. varying from  $60^{\circ}$  to  $70^{\circ}$ . It is feasible to circulate this quantity at these temperatures.

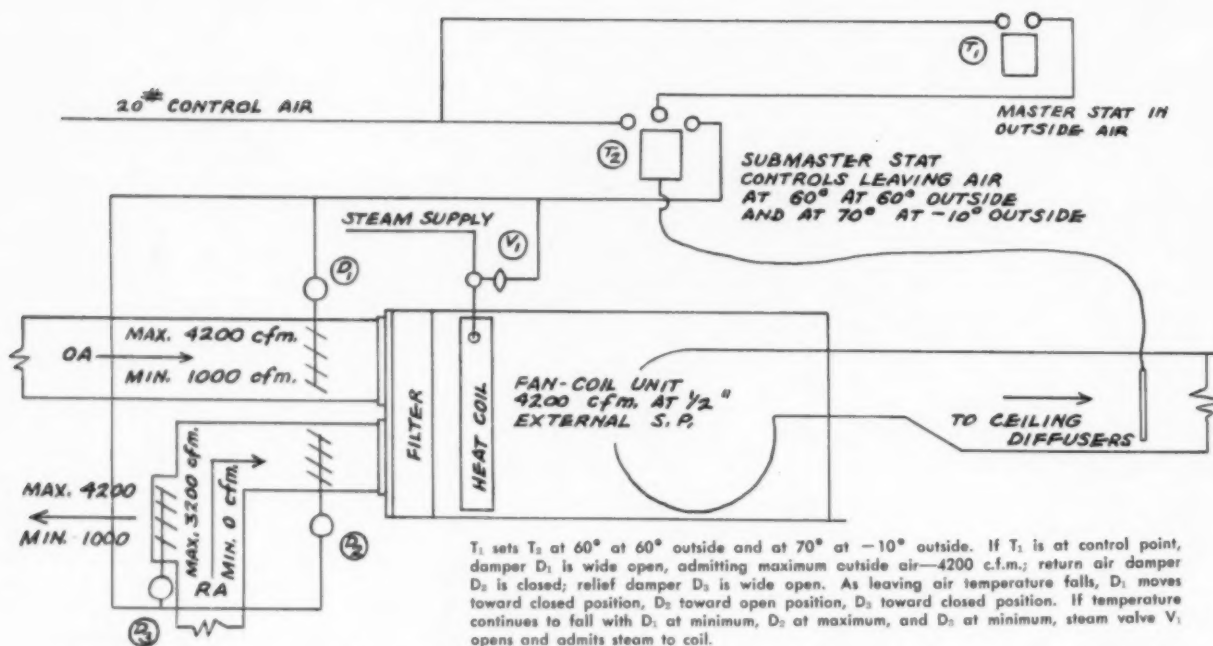
As to the total amount of air to be circulated, we can be guided further by experience with ventilation of secondary school classrooms. This experience has been embodied in many state ventilation codes. Typical of many codes is the Indiana code that requires the circulation of 40 c.f.m. per person, of which at least 10 c.f.m. must be outside air. Applied to this room, the code requires 4000 c.f.m., which coincides with 4200 c.f.m. arrived at here.

#### 72° TEMPERATURE BEST

We conclude that the best design is  $72^{\circ}$  room temperature, 4200 c.f.m., and shade screens. This automatically fixes  $60^{\circ}$  outside temperature as the maximum at which natural cooling will be effective. It is recognized that the outside temperature will go above  $60^{\circ}$  in the spring and fall of the academic year, and at these times the room temperature will rise above  $72^{\circ}$ . However, at these times the windows usually will be opened and there will be an acceptance of the condition.

The next problem is to design a system to meet the design conditions. In this room we have existing cast iron radiators under a building weather control. This control regulates heat in accordance with outside weather regardless of the temperature in the room. This has been contributing to the overheating in the room. If enough heat is supplied by the radiators to keep the room up to temperature when the room is unoccupied, lights are out, and sun is not shining, and if heat is supplied at the same rate when these sources are imparting heat, obviously the room will be overheated. Therefore, the radiators must have individual room temperature control.

The present supply fan in the attic cannot be used for air circulation and supply because it supplies other rooms



**Schematic Drawing Showing Ventilation and Natural Cooling System of a Purdue Building**

through side-wall registers. If we circulate air at 60° to 70° to these rooms we would be in trouble with drafts. It would be possible to use unit ventilators. Manufacturers are now increasing the outside air capacity so they will be more effective for natural cooling. However, we would need at least three unit ventilators to obtain the desired 4200 c.f.m. maximum outside air quantity. The room is already crowded and unit ventilators would occupy space that cannot be relinquished. On this basis and on the basis of cost, unit ventilators were eliminated. A new supply fan will be installed in the attic with filter and tempering coil, outside and return air connections, and dampers. A new air distribution system with ceiling diffusers will be installed.

The temperature control system is of great importance. What we propose is somewhat different from systems we have seen. Chart 2 indicates the control requirement for supply air. To accomplish this there is a master stat outside which will reset a submaster stat in the leaving air from the fan in accordance with Chart 2. As the leaving air tends to fall below the set point of the submaster stat, the outside air damper will be moved toward the closed position, and the return air damper will be moved toward the open position. The outside air damper ultimately will move to a minimum position at which 1000

c.f.m. will be admitted. This will occur at about 24° outside temperature.

If the leaving air temperature still tends to fall, the steam valve on the tempering coil will open. If the temperature tends to rise above the set point of the submaster stat, the return air damper will close and the outside air damper will open full, in which position it will admit 4200 c.f.m. outside air.

#### ACCOUNTS FOR OVERHEATING

In this case the tempering coil will be in the duct after return and outside air have been mixed. The usual location for the coil is in the outside air duct. The purpose of putting it in the mixed air duct is to improve control by reducing fluctuations in leaving air temperature. Using a sensitive thermometer, I have discovered wide fluctuations in ventilating air temperatures of up to 25° to 35°. These fluctuations do not show up on the usual remote bulb dial thermometer on the outside of the duct. Furthermore, it has been found that the average temperature of the air away from the fan out in the duct system is higher than the control instrument setting and higher than that shown on the dial thermometer. At times the difference will be as much as 10°. This helps to account for the gross overheating frequently encountered in buildings with combination radiator heat and forced air ventilation.

Therefore, we want to be sure that the leaving air will be held within very close limits. To do so requires that the control valve on the coil be closely modulated. The objection to close modulation of a steam control valve when the coil is in the outside air is that condensate may be held up in the coil and the coil may freeze and burst. With the coil in a mixture of outside and return air this hazard is eliminated and the control can be truly modulated.

The system described will supply air in the quantity and at the temperature required to offset the net heat gain in all weather from -10° to 60°. There will be times, of course, when we will not have the full heat load and we then will be supplying more cooling than needed. At these times the room thermostat controlling the radiators will take over and keep the room at 72°. The fan will be turned off at night and on week ends by a clock switch. If it is decided at some future time to use the room during the summer a cooling coil and cooling controls can be added.

With the increasing dissatisfaction with much that is done in the name of ventilation in offices, classrooms and lecture rooms, it is hoped that this study of a particular problem may help to clear up some of the confusion that has existed and provide a basis for design of systems that will serve our institutions better. #



# A Closer Look at Scholarship Aid

CARL M. LEHMAN

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A SCHOLARSHIP HAS NO UNIVERSALLY accepted definition. One that is gaining some prominence is the definition by John A. Pollard of the Council for Financial Aid to Education: "A scholarship, rightly conceived, is a grant-in-aid to an exceptionally able but financially needy student which will help in a substantial measure to close the gap between his or his family's available resources and the total annual cost to him of a college education."

That this definition has not always been recognized is shown by a recent study of Ohio colleges, which may or may not be typical. Of 34 reporting, 25 colleges, or 73.5 per cent, had an honor scholarship awarded entirely on scholastic promise.<sup>1</sup> At an informal meeting of college business officers from various parts of the country at the University of Omaha in 1955, fully half were not aware of a growing emphasis on financial need as a condition for scholarship awards.

On the other hand, various groups of schools have cooperated with one another to assure that awards be based on need as well as on scholastic ability. Among some of the first were Yale, Harvard and Princeton. The eastern "Seven College Conference" started a clearinghouse for this purpose in 1954. Also in 1954 the College Entrance Examination Board created the now widely publicized College Scholarship Service. This service emphasizes that selection for financial aid awards should be based as traditionally on achievement and promise, but that the amounts of aid awarded should be determined according to need. The more than 120 colleges currently participating use a uniform statement from parents giving comprehensive information about their financial ability.

<sup>1</sup>Sudnick, Edward A.: Status of Scholarship Programs in Ohio Colleges and Universities in 1953-54 (unpublished master's thesis, Ohio University, Athens, 1955).

It is, of course, no secret that colleges have long used scholarships to attract outstanding students to their institution. Serious questions are being asked concerning this practice. Is it right to deplete meager scholarship resources by competitive bidding for talent? An indication of new thinking on this question is action such as that taken by the Ohio Association of College Admissions Counselors in November 1955. That group unanimously opposed the use of scholarships as a recruiting device.

Some scholarship funds are restricted by donors so that financial need cannot be considered. Generally, though, this is not true. The common practice of awarding nonfunded scholarships has often been questioned. It is apparent that in the long run either the student body pays for these grants through higher tuition or the faculty through lower salaries.

Actually, to whatever extent scholarship funds have gone to people who could and would have gone to college without them, to that extent at least the rest of the student body and/or faculty have paid for such scholarships. This is true because awarding such scholarships reduced the total number of "cash customers."

Some cogent arguments have been advanced for socialized medicine because many people cannot afford adequate medical care. Doctors' fees may be too high for some people, but at least doctors do not make them higher so they can afford to give free medical attention to a special group of patients, some of whom are well-to-do.

## IS LACK OF OPPORTUNITY REAL?

There is not complete agreement that the financial barrier to higher education is a serious one. In an article in the *Saturday Evening Post*, Dean Russell claims that "anyone who

wants to go [to college] can do so, even if he has no money and no parents to help him." He qualifies his statement by limiting this to those in the upper one-third in ability. The procedure he outlined is to apply for admission, ask for a scholarship, a job, and a loan; also to work hard, live frugally, and go to night school if necessary.

This is no doubt sound advice if not too many take it, and if there is a night school close by. The report of the Commission on Financing Higher Education, sponsored by the Association of American Universities with grants from the Rockefeller Foundation and the Carnegie Corporation, is in somewhat similar vein, except that it is more cautious: "The economic barrier to higher education usually is exaggerated in most discussions of the subject, for this barrier can be overcome where there is an individual determination to do so. Many a person in the past has been able through his own efforts to finance higher education for himself. It is still possible to do this. Nevertheless, for some students the economic barrier is a formidable one."

"We are not suggesting that present scholarship funds are adequate, that they meet all the demands made upon them. More will be required to bring educational opportunity to all students of exceptional talent. Yet we do not agree with those who have urged that the federal government should establish a vast scholarship aid program. Rather we believe that more effort should be expended upon persuading various private groups to expand their scholarship interests, upon encouraging individuals and others to provide more funds directly to colleges and universities for this purpose."

In his staff report for the same commission John D. Millett, who directed

the study, comes to a different conclusion. "Our staff study on the matter of scholarship assistance proposed that about half of the national goal for scholarship awards should be assumed by the federal government. . . . A general scholarship program would permit institutions to fix tuition fees closer to actual educational costs, perhaps even including plant depreciation."

Dr. Millett bases his assumption on data from the Hollinshead study, "Who Should Go to College," published by the Columbia University Press in 1952. Below is a summary:

Total 18 year old age group	2,114,000
No. of these graduating from high school	1,205,000
Top quarter of total group	528,000
Top quarter who graduate from high school	422,000
Top quarter who go to college	219,000
Top quarter who do not go to college (H.S. graduates)	203,000
Need given for not going to college	68,000
Unmotivated but could be induced	34,000
Had "other plans," could be induced	23,000
H.S. drop-outs that might be induced	26,000
Total who might be induced by scholarships	151,000

Assuming a scholarship of \$500 a year for a four-year period with a 25 per cent drop-out, the annual cost for such aid would be \$226 million. The U.S. Office of Education reports only \$36 million presently given by institutions, with perhaps a greater amount given directly to students by corporations, clubs and other organizations. In the light of this present giving level, Dr. Millett sees little hope of getting anywhere near the needed \$226 million except through federal aid.

It would appear that those who say a substantial number of high caliber young people do not go to college but would, if they had the means, support their contention with considerable evidence, though it may not be conclusive. The weak point is in the elusive question of motivation.

According to the Hollinshead study there were 528,000 top quarter students, and of these only 219,000 went to college. How many of the remaining 309,000 would go if \$226 million additional were available in scholarship funds? Would it be his estimated 151,000 or would it be far less? No one knows for sure.

Those who categorically deny the need for federal aid have apparently ignored studies pointing to the contrary and offer little more than opinions. All, of course, agree that more studies need to be made, particularly on the question of motivation.

In a 1949 survey conducted by the National Education Association in which 949 college and university presidents responded, 83 per cent of the private and 80 per cent of the public favored federal scholarships. There has been no recent survey. Neither is there a concerted effort on the part of colleges to support legislation<sup>2</sup> for such scholarships. This would indicate that interest is no longer as keen as it was in 1949. At that time presidents were faced with decreasing enrollments; today they are frightened by the "tidal wave" and not excited about extensive scholarship programs that would add to the early need for increased facilities. College presidents are human, of course, but at least it is to be hoped that the high social motivation that supposedly prompted the interest in 1949 has not been lost.

#### SURVEYS AT BLUFFTON COLLEGE

Until recently we did not pay much attention to financial need in awarding scholarships at Bluffton College. We have only a modest program consisting chiefly of \$50 a year honor scholarships awarded to high ranking high school graduates, a few funded scholarships worth from \$150 annually on down, ministerial loans formerly amounting to one-half tuition but now leveled off at \$125 annually, and grants to children of ordained ministers also formerly amounting to one-half tuition but now worth \$125 annually.

We wanted to know to what extent our modest program brought students to college who otherwise could not have gone. Although we had not been overly active in using our scholarships as a soliciting device, we were incidentally curious about how many of those who came to Bluffton would have gone elsewhere had it not been for their scholarship from Bluffton. To find the answer to these two questions we sent a brief questionnaire to each of the 284 students who had received awards during the 10 year period beginning with the 1945-46 school year and ending with the 1954-55 school year. Returns came from 181 for a 64 per cent response.

Only seven students, or less than 4 per cent, said that without their scholarship they definitely could not have gone to college. Fifty-one others, or 28 per cent, said that they *might*

not have gone to college. A large majority, 119 or 66 per cent, said that it had little to do with their decision.

During this 10 year period we awarded approximately \$59,000 to the 284 students. Assuming that those who replied are representative of the rest, \$19,000 went to those who said it had something to do with their decision to go to college. The other \$40,000 went to students who in retrospect say it had very little to do with their decision. In other words, more than two-thirds of our scholarship money has been going to those who by their own statement indicate they didn't need it.

Eighty-five students said their grant had something to do in choosing Bluffton instead of some other college as against 93 who said it had very little to do with their choice. This would indicate that quite a few students who could and would have gone to other schools were attracted by our scholarships. This was especially true of the ministers' children.

#### CONCLUSIONS

As already suggested, studies concerning scholarship needs and the potential effectiveness of a vastly enlarged program are more indicative than conclusive. So long, however, as only 41 per cent of the top 25 per cent go to college as shown by Dr. Hollinshead, there is little question about an enormous waste of human ability. If 59 per cent of our best soil and timber resources were not being developed we would be agog over the waste. We might not be sure how best to develop these resources, but we would try something.

It is not clear how effectively an enlarged scholarship program based on need would eliminate this waste. We do know that in the lower income group the percentage of highly qualified young people who go to college is far less than that in the higher income group. We do not know just how many of these young people could be induced with scholarship help.

We also know that considerable scholarship aid goes to young people who do not need aid while many who would like to go to college cannot. No doubt these scholarships offer some incentive to higher scholastic attainment and for that reason are not totally wasted. It is quite evident, however, that there is waste and that the colleges themselves are responsible for some of it. If the present trend continues, much of it will be eliminated.

<sup>2</sup>At least eight bills were introduced during the 84th Congress, six by the House and two by the Senate, to provide federal scholarships in one form or another.

To help in construction and  
management of facilities, we sought

## *Student Opinion in the Planning Process*

WARREN C. RAMSHAW

Assistant to the Director of Housing and the Illini Union  
University of Illinois, Urbana

LIKE MANY UNIVERSITIES, THE UNIVERSITY of Illinois has never made specific provision for housing single graduate students, with the exception of the few students who live in undergraduate residence halls as counselors. The rest have to find whatever housing is available in the community. Consequently, we had little operational experience to guide us in the construction and management of facilities for single graduate students.

What kind of housing do single graduate students want? Do their needs differ greatly from those of undergraduates? Can graduate students afford to live in quarters built according to their desires?

These and a number of other questions that involve student opinion needed answering before we could develop a graduate housing program. To find the answers, we sought the opinion of single graduate students.

### PLANNING AND QUESTION WRITING

University officials responsible for developing the housing program listed factors about graduate housing that seemed important for them to know before they decided on a graduate student housing program. We thought it important to know the following:

1. Would graduate housing in traditional residence hall units interest graduate students?
2. Do graduate students prefer double or single room arrangements?
3. Do most graduate students study in their rooms, or do they use laboratories and/or libraries for a greater part of their study?
4. Do graduate students want cooking facilities so that they may prepare their own meals?
5. What are graduate students currently paying for rent and food?
6. What special needs do graduate

students have that should be considered in planning residence halls?

In addition to this information, we needed certain biographical facts for analysis: the sex of the student, his graduate study load, his work load besides graduate studies, his veteran status, the availability of meals where he now lives, the type of facilities in which he now lives, and department in which he is doing graduate work.

Next came the phrasing of the questions. Thirteen questions were developed which, it was felt, would provide the information desired by the university administration.

To test the adequacy of the questions, we selected 75 graduate students at random and mailed each a mimeographed copy of the questionnaire with a cover letter explaining the nature of the sample mailing. We solicited comments and suggestions about the questionnaire as well as about graduate housing. The students made specific suggestions about wording, order of questions, and general clarity, and these led to a revision of the questionnaire, and an increase in the number of questions from 13 to 18.

More important than the additions, write-in questions from the respondents indicated that some fundamental thinking about the nature of graduate residence halls would have to be done before the final questionnaire could be mailed. Questions raised about hours, rules, meal schedules and contracts, study conditions, guests and entertaining showed that these matters needed to be clearer in the final copy of the questionnaire to obtain valid and meaningful reactions from graduate students. Meetings with the university officials involved led to inclusion of a general statement in the questionnaire that "undergraduate regulations would not apply" in graduate

residence halls. No attempt was made to clarify or define the statement or to establish at the time specific regulations governing graduate halls.

We printed the revised questionnaire on a single sheet 8 by 20 inches, so that it would fit an enclosed No. 9 postage-paid envelope. At a glance, the graduate student could observe the questionnaire's length and see that it was not forbiddingly long or difficult to complete. A statement preceding the questions explained the purpose and sponsorship of the questionnaire (it was sponsored by the housing division and the graduate college), and pointed out that information gained from the survey would guide the planning of graduate student housing.

We had only 1500 single graduate students, and this made it possible to send questionnaires to every student. The registrar's office provided the names and addresses.

### RESPONSE AND ANALYSIS

More than 65 per cent of those receiving the questionnaire completed and returned it in the 10 day period allowed. A return of 25 per cent from questionnaires mailed to the general population is regarded as very good. Our experience indicated a high degree of interest in the topic.

Most questions had multiple choice answers, and the student merely checked his response. These answers could be punched directly into cards without interpretation or coding. Write-in (or opinion) responses were coded by giving them a number value.

All responses were tabulated in bivariable distribution tables so that any item of response could be checked or judged in relation to any other item. For example, the response to every question was tabulated in terms of sex, veteran status, and type of present liv-



ing facilities, among other factors. Likewise, every indication of interest in graduate housing or preference for particular facilities was tabulated in relation to sex, veteran status, and all the other variables.

In this way, any question asked by a building committee or an architect could be answered, if the information was contained in the questionnaire at all. That is, if questions were raised about the type of students who want cooking facilities, these students could be identified by every biographical index item in the questionnaire (sex, college, work load, board and room costs now paid, and so on). Conversely, it was possible to distinguish the variety in the responses of, for example, veterans and nonveterans, English majors and chemists, men and women, and full-time students and part-time students.

## RESULTS

About 60 per cent of the graduate students favored graduate housing facilities as they were described in the questionnaire. The standard two-person unit with board was listed at \$375 per semester per person. A unit for one person with board was listed at \$400 per semester. Forty per cent preferred privately operated housing facilities of various types.

Those interested in the facilities as offered (the 60 per cent) tended more than their expected averages to be men, nonveterans, persons now living alone, persons living in sleeping rooms in private homes, students carrying four or five units of university work, and students who do not carry part-time jobs in addition to academic work.

On the other hand, those who did not look with interest on the proposed graduate student housing (the 40 per cent) tended more than their expected averages to be women, veterans, persons working for the university (with half of this group working about half time), persons carrying three units of university work, persons who do not live alone, persons who have meals available where they live now, and persons who now are living in private apartments.

Why is this group not interested in the residence halls for graduate units? Three principal reasons were given:

*Too costly.* Many graduate students believe that they can live more inexpensively in private accommodations,

especially where they are free to cook their own meals. A special study of those who made this comment indicated that their costs for rent and food are considerably below those suggested by the university—so low, in fact, that the university could probably never attract them to graduate residence facilities.

*Meal contracts and food service.* There was a great reluctance on the part of many graduate students to enter into a food contract. Some said only one or two meals (breakfast and supper) should be on a contract basis. Others declared that all meals should be pay-as-you-go. Students in the physical sciences, especially, said they would be unable to commit themselves to a fixed meal schedule. Most students want to take their week-end meals at places other than the university.

*General need for freedom from supervision.* This item ranked almost as high as the other two reasons for lack of interest in residence halls. Both men and women students want no regulations on hours, guests or entertainment. They hope there will be a minimum of social organization within the halls.

Results of the survey also showed:

1. When cost is not a factor, single rooms are preferred to double rooms in the ratio of 4 to 1.

2. Of those who are interested in living in residence halls (the 60 per cent), slightly more than half prefer to cook some or all of their own meals.

3. About 60 per cent of those interested in living in residence halls would pay \$20 a year more to have a lavatory and bathroom cabinet in their rooms.

4. The average single graduate student at Illinois pays \$32.44 per month for rent, \$52.95 per month for food, or \$74.01 per month for room and board when they are paid together.

5. Seventy-one per cent of the graduate students do at least half of their studying in their rooms.

## DECISIONS

Based on the results of this survey, it could be determined that:

1. Of the total number of single graduate students, about 60 per cent would favor living in university owned residence halls. About half of that 60 per cent would want food preparation and food storage facilities, and the other half would want conventional food service facilities. That means that approximately one-third of

the total number of graduate students are interested in traditional residence hall facilities providing board and room.

2. Of those who want meals prepared for them, many prefer pay-as-you-go arrangements to a meal contract.

3. The greater number of graduate students want single rooms, if the cost differential is not too great.

4. There was a wide demand for a minimum of regulations, supervision and organization in the halls.

5. Residence hall rooms need to be adequate for study purposes, as well as for sleeping and clothing storage.

6. The differences between groups interested in and not interested in residence hall facilities are such that it is not likely to make the future application of these results invalid because of a shift in the nature of the university's population.

A great number of specific suggestions arose from the questionnaire method of determining need and interest. This method has the advantages of:

1. Allowing those who may be benefited by the decisions (or their successors) to participate in making the decisions.

2. Allowing a wide range and large number of persons to participate in the decision making process.

3. Bringing in suggestions and information that may not occur to university administrators or are not otherwise available to them.

4. Avoiding costly mistakes in construction or management by learning what may and may not be acceptable to students when operating experience is not available.

5. Providing a basis on which decisions of construction detail can be made.

## COST OF SURVEY SLIGHT

The cost of the survey was slight. Our project took approximately 240 man-hours of work. A questionnaire similar to the one we used can be drawn up with the advice of the marketing or the sociology department, and the tabulations can be handled by the usual equipment found in the registrar's office.

This procedure provides a readily available, inexpensive and reasonably accurate way to bring wide student opinion into the planning process for housing, unions or academic building programs. #



President Charles L. Anspach of Central Michigan College, acting as headwaiter, pours coffee to residents of the dormitory that won college's Christmas decorating contest.

GOOD WILL, THAT ABERRANT AND elusive spirit of generosity and understanding we so eagerly seek, is not created overnight, nor is it born of a single activity or effort of the staff. Good will results from continuously applied imagination, ingenuity, resourcefulness and effort on the part of those charged with the management of union buildings and college food services. Certain occasions that arise during the year lend themselves easily to promotion of friendly, desirable, sought-after relationships. Of these, the most important is Christmas.

We are remiss in our responsibility if we fail to take advantage of the spirit of brotherhood that prevails among students, personnel, faculty and staffs at this glorious season. The benefits that accrue from holiday activities may well immunize us and our administration from criticism, misunderstanding and suspicion for months to follow.

A few of the activities which we at Central Michigan College engage in prior to the Christmas season are given here.

1. *Residence halls' dining room window decorating contest.* Begun three years ago, this has become a traditional activity. The students of six residence halls are invited to decorate the windows of their dining rooms. Using water paints, each group attempts to outdo the other through creating scenes around the theme or traditions of Christmas. A committee composed of one representative from each residence hall and one from the union building and college food service staff determine the contest rules.

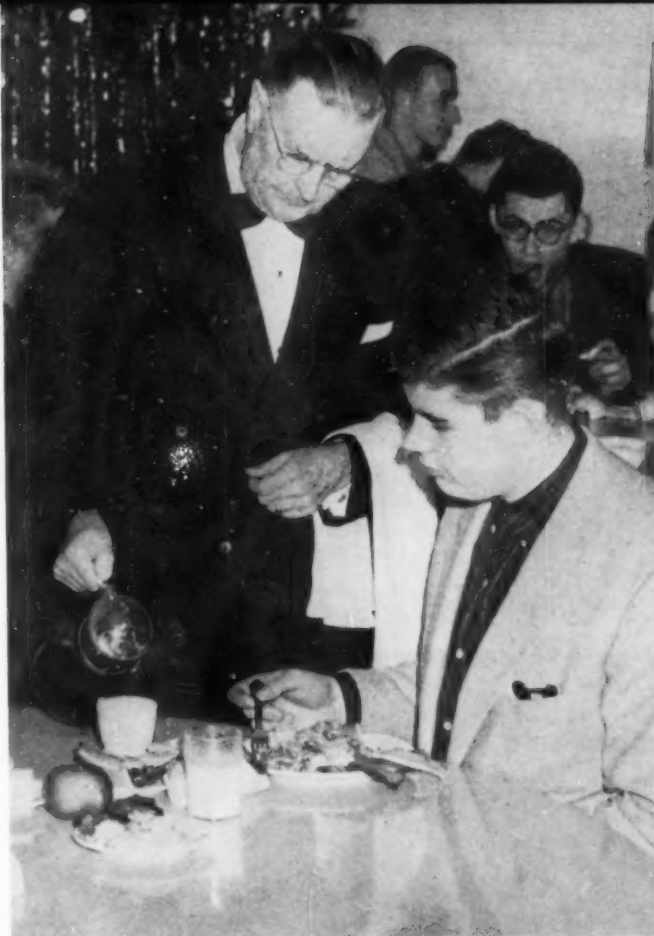
The rules follow this pattern: (1) *Selection of a theme* in order to facilitate judging and to lend unanimity to work. (2) *Selection of judges*, one by each residence hall and one by the union building and food service staff. Judges may be members of the faculty, student body or the community. However, they may not be associated with the dormitories in any way. (3) *Decorating to be done* by the residents of the halls only. (4) *Deadline* for completion of the work, generally two

weeks prior to the Christmas holiday. (5) *Criteria to be used* in determining the winner. The judges are given one week in which to examine the work and select a winner. (6) *The announcement date* of the winner.

The award is a smörgåsbord for the residents of the residence hall winning the contest. The judges are guests at the dinner. The service at the smörgåsbord is provided by the vice presidents of the college, professors, hous-

ing director, and director and assistant directors of the student union building and college food services. The president of the college serves as headwaiter and ambassador of good will for the occasion. There are no restrictions on the amount of food the students may have.

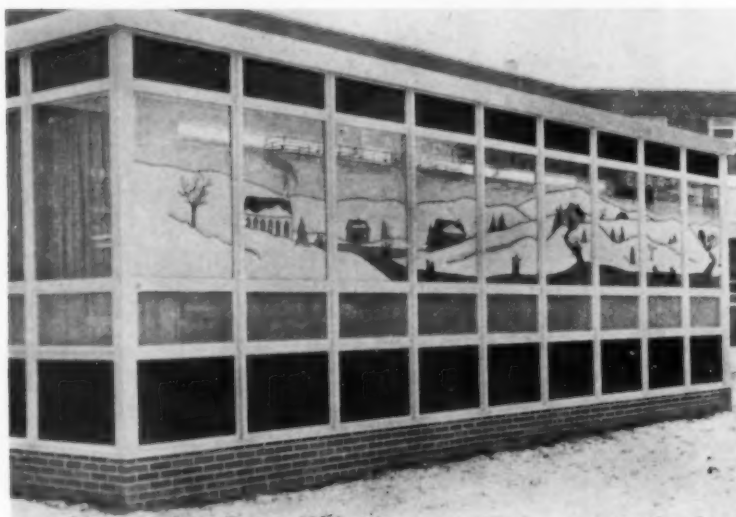
The menu consists of Virginia baked ham, prime round of beef, French fried onion rings, baked cream cheese potatoes, hot German potato salad, hous-



## ***Good Will to All Men and to women students, too***

**R. J. LICHTENFELT**

*Director, Keeler Union and College Food Services  
Central Michigan College, Mount Pleasant*



Scene painted on girls' dining room window in Christmas decorating contest.

homemade baked beans, baked dressing, baked squash, assorted fresh fruit, vegetable and molded salads, assorted relishes, assorted desserts, assorted homemade breads, and beverages.

2. *Candlelight buffet dinner for dormitory residents.* On the eve of the Christmas holiday the 1750 student residents are provided a fairly elaborate "buffet" dinner, in a festival atmosphere of candlelight and music. Again, there are no restrictions on the amount of food they may have.

3. *Candlelight breakfast for residents of all girls' halls.* This, too, has become a traditional affair in girls' halls. A very early breakfast is prepared to which the girls appear in pajamas, carrying candles.

4. *Student employe Christmas party.* This, an annual affair, is held in the union ballroom for the 200 student employes of the union and college food services. The program, entertainment and food for this party are arranged entirely by the students them-

selves. The occasion has proved to be an hilarious event. The staff's only responsibility is to arrange for late permission for the girls employed in the department. I am sure that the staff enjoys this annual affair every bit as much as do the students.

5. *Regular employe Christmas party.* The 70 regular employes of the union building and college food services are entertained by the staff at a dinner in the union ballroom. Last year the party was held on a Sunday evening, a time at which the kitchen was free, in order that employes would not have to assist in any way with the preparations. The staff prepared and served the entire meal. Again, the program was arranged by the employes themselves. We were amazed at the talent that was uncovered among employes. At this party gifts are traditionally exchanged. The amount of the gift is determined by a committee, and names are drawn, at least 10 days prior to the party.

At Central Michigan College, the union building and food services administration has taken the attitude that "good will to all" should not be merely a phrase. Instead, we have attempted to implement the words by tangible and demonstrable activities that contribute to harmony among the employes, the students, and the administration. #

President Anspach briefs faculty members and administrative staff who will serve as waiters.





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## "Student Proof"

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Illustration shows Simmons Dorm Line built-in storage unit with a six-drawer chest set inside; Beautyrest® Sleep Lounge; Simmons desk with two drawers and pencil drawer, with bookshelf above. Just one of the many room arrangements possible with Dorm Line furniture. There's a wide range of color combinations to choose from.

## Versatile Dorm Line Furniture banishes the "institutional look"

In this room two Simmons Dorm Line wardrobes, each with a six-drawer chest, provide ample storage space for two students. The two student desks have end bookshelves, and also bookshelves above the writing space.

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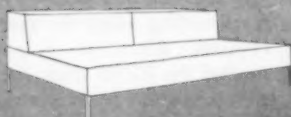
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# NEWS

**Demand Inquiry in Faculty Ousters . . . Wisconsin Colleges Get Building Help . . . Families With Children Rate ETV High . . . South's Colleges Plan TV Network . . . Needy Students in Delaware Guaranteed Aid by New Law**

## Ask Investigation of Two Professors' Ouster

LUBBOCK, TEX.—The summary dismissal of two professors from the faculty of Texas Technological College at Lubbock has created a demand by 215 of the 400 regular faculty members that the ousters be investigated. They charged that the college board of directors acted behind closed doors with no official word given as to the reasons for the dismissal.

Such action, according to faculty members, violated accreditation standards on tenure and academic freedom, and they have requested the Southern Association of Colleges and Secondary Schools, with headquarters at Atlanta, Ga., to investigate. Dr. E. N. Jones, president of Texas Technological College, is reported to have declared last July that he felt the dismissed professors had deserved a hearing.

Dr. Charles Davis, dean of the school of arts and sciences at Florida State University and chairman of the Southern Association's standards committee, met with members of the tenure committee of Texas Tech. An adverse ruling on the subject at the Southern Association meeting in December at Richmond, Va., could possibly cause Texas Tech to lose its accreditation.

## Still Room for 3000 in 60 Small Colleges

WASHINGTON, D.C.—A spokesman for the 60 small colleges making up the Council for the Advancement of Small Colleges reported they still had room for 3000 undergraduates this fall.

The Council for the Advancement of Small Colleges is composed primarily of nonregionally accredited institutions averaging a little under 400 students each in enrollment. The analysis of available openings indicated that in the East there were 335 vacancies,

in the Midwest 1625, in the South 855, and on the West Coast 190.

The council has established within recent months its purposes of gaining accreditation for members that have failed to receive such recognition because of inadequate libraries, lack of Ph.D. faculty members, and the like.

## Governor Signs Bill Helping Colleges in Building Programs

MADISON, WIS.—Gov. Thomson of Wisconsin recently signed a legislative bill providing for the use of student fees for the construction of academic buildings at the University of Wisconsin and the nine state colleges.

In the past, it has been necessary for the colleges to request and to receive specific appropriations from the state general fund in order to erect academic buildings. The new bill allows the university and colleges to borrow money for classroom buildings and to repay the loan with a portion of student fees collected.

This new legislation makes it possible for the colleges to plan their building programs without step-by-step approval of the legislature. The institutions will be able to plan ahead on the basis of anticipated revenue.

At present, university regents have approved a \$17,778,800 building program under the new procedure and the state college regents a \$9,450,000 program. Both building programs must be reviewed and approved by the state building commission.

Under the provisions of the new law, there would be transferred each year from the state general fund to the college fund an amount equal to 20 per cent of all student fees collected at the university the previous year and 33½ per cent collected by the state colleges, all of this being made available for capital improvements.

## ETV Scores Highest With Large Families

ANN ARBOR, MICH.—Families with children are more likely to be regular viewers of educational television than those without youngsters, and adult viewers are generally serious minded people who read hard news and editorials in newspapers rather than the lighter items.

At least that's the case in the San Francisco Bay area, where community educational station KQED draws an audience of between 380,000 and 576,000 viewers, according to a survey made by Stanford University's institute for communications research for the Educational Television and Radio Center here.

Dr. Ryland Cray, director of education for the center, feels the audience for KQED may be fairly typical of ETV audiences in other cities. Educational stations operate in 23 cities.

Families with children are more likely than childless families to be in the KQED audience, according to the survey, and they rated ETV more interesting and valuable than other kinds of TV. Their viewing time went up with the number of their children and their satisfaction with educational TV increased the more children they had.

The survey concluded that the popularity of ETV among families with children was a further indication that TV had become a child's handy companion and takes over some of the informational duties that had formerly fallen to harassed parents.

## 150,000 War Orphans Eligible for Schooling

WASHINGTON, D.C.—Applications for schooling under the year-old War Orphans Education Program have reached the 10,000 mark, the Veterans Administration recently announced.

(Continued on Page 56)



# Medical Expenses mount up fast

Now, through TIAA's new MAJOR MEDICAL EXPENSE INSURANCE, colleges can help free their staff members from concern over the financial problems of medical care for themselves and their families.

TIAA MAJOR MEDICAL is issued on the Group basis and can be added to a "base plan" such as Blue Cross-Blue Shield or designed to provide the entire medical expense insurance program at the college.

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(Continued From Page 54)

The education program for sons and daughters of deceased war veterans became effective last October. A total of 150,000 young people will be eligible for War Orphans schooling, according to current estimates.

These students generally must be between 18 and 23 years of age. They either must have completed or have been a pupil in a regular high school. They may receive up to 36 months of education, with V.A. paying an allowance of up to \$110 a month for each month they are at school.

Before they start school, they will be given vocational counseling to help them select a goal and the proper course leading to the goal.

To be eligible, their veteran-parent must have died from a wartime incurred disability.

### Gives Fortune to Train Engineers

NEW YORK.—John D. Hertz, founder of the Yellow Cab Company and the Hertz-U-Drive-It System, recently announced to the press that he would

devote his entire fortune, estimated at many millions of dollars, to the establishment of the Hertz Education Foundation to train American engineers.

The announcement of the establishment of the foundation stated that "with the exception of reasonable provisions for his children, Mr. Hertz plans to devote to the fund all the fortune that he and Mrs. Hertz possess or control." It is estimated the foundation will make possible the training of thousands of potential engineers.

In setting up provisions of the fund, Mr. Hertz stipulated that there must be no discrimination in giving aid with regard to race, religion or sex, and that all those receiving aid must take a course in American history. Recipients of the grants made by the foundation must pledge themselves to serve the United States on request of the government in time of national emergency.

### Colleges Benefit by New Group Insurance

NEW YORK.—Issuance of a new group insurance plan covering total disability affords the college world an advantage in competing with industry for professional staff, according to R. McAllister Lloyd, president of Teachers Insurance and Annuity Association.

In releasing a formal description of the plan last month, he stated that it "provides coverage more extensive than anything generally available in industrial employment."

Citing as an example that a 10 year total disability for a person with a \$7000 annual salary represents a loss of \$70,000 in earnings, the descriptive pamphlet says: "The very enormity of the loss to the disabled individual and the low frequency of total, long-term disability make this, we believe, an area of risk well suited to insurance."

It is estimated that for a typical faculty group the premium for a complete program is about 1½ per cent of the payroll of the actual participants and therefore a lesser percentage of total payroll.

### Plan TV Network for Southern Colleges

TALLAHASSEE, FLA.—The Southern Regional Education Board has submitted a plan to the Federal Communications Commission calling for a linking of 309 colleges and universities in an educational television network.

(Continued on Page 58)



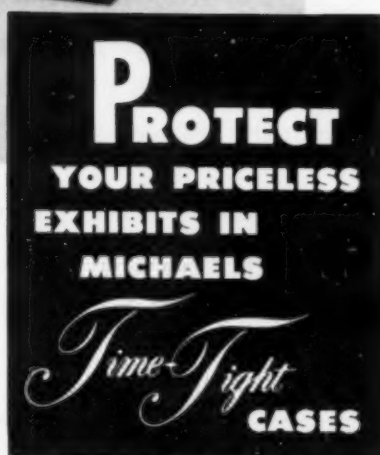
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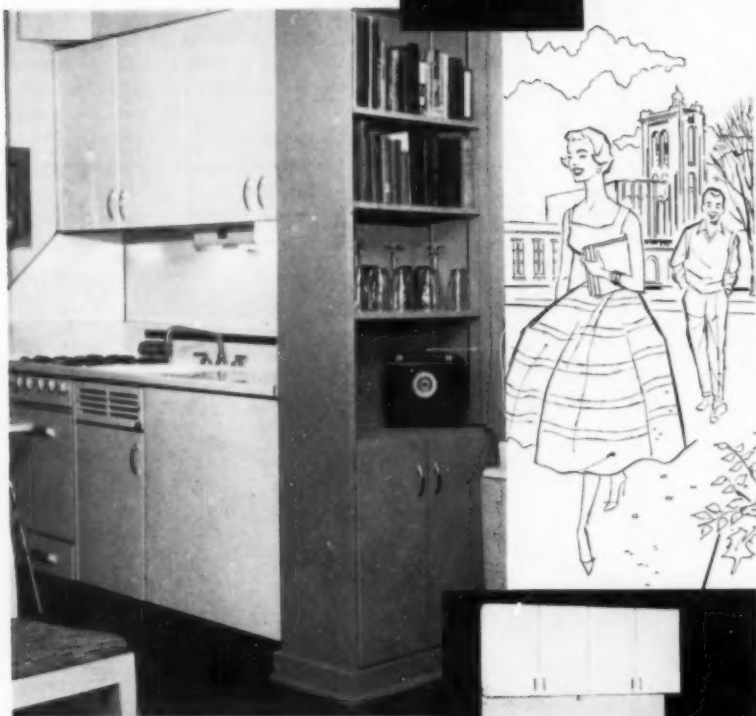
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The S.R.E.B. is dedicated to the improvement of higher education and social and economic levels in 16 states. It includes the governors of these states among its 80 members.

In its petition, S.R.E.B. asked the commission to reserve the frequencies necessary to carry out the proposed program, developed after a year of study and survey.

Dr. Robert C. Anderson, director of the Southern Regional Education Board, stated that the suggested educational television network would include 309 schools in Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia. At the present time, schools in these states have an enrollment of 600,000 students with an expected increase to 900,000 within 10 years. The TV network would require 10,446 miles of microwave relays. Key universities in the area would transmit instruction to other schools with each school having its own closed circuit for its own campus.

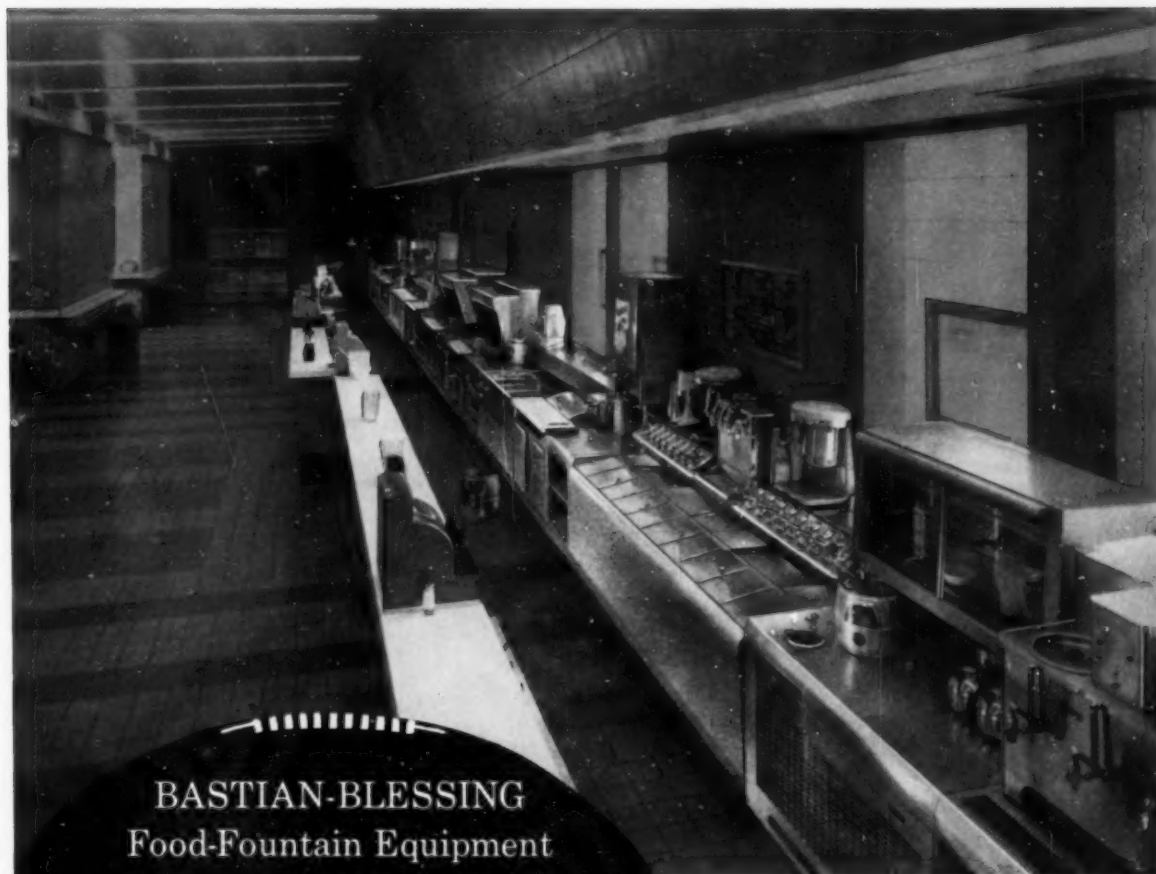
Dr. Anderson pointed out that although the original cost of the network would be high, it would not be more than 10 per cent of the total money which the 309 schools involved would spend for new facilities in the next decade.

### Law Guarantees Aid to Needy Students

DOVER, DEL.—No aspiring young high school graduate in this state need forfeit a college education because he lacks funds. A "right to education bill," which became law this summer, guarantees economic aid to every needy person whose academic record qualifies him to enter the University of Delaware.

Grants will vary according to individual need. Each applicant for aid will provide biographical information, a financial budget, and a parent's financial statement. The legislature has allocated \$30,000 for the first fiscal year of the program, and \$57,000 for the second fiscal year beginning July 1, 1958.

There is no element of academic competition in the program. Officials state that it resembles in some respects the G. I. bill, because a student is eligible to receive aid if he qualifies for university entrance. Once accepted, students must maintain at least a C minus average.



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## Students and Faculty Meet to Exchange Ideas

CHICAGO.—Student-faculty cooperation plus the application of democratic principles were the ingredients Illinois Institute of Technology used in planning the year's activities.

Fifty students and 25 faculty members met at Lake Geneva, Wis., last month to plan and discuss student publications, the social calendar, student-faculty relations, finance and parliamentary procedure.

Representatives from the faculty council, residence halls, academic de-

partments, and the I.I.T. administration, as well as members of the Illinois Tech Student Association, participated.

Highlight of the three-day conference was a student-faculty-administration round table at which problems and the goals of the general student body, student leaders, and faculty at Illinois Tech were discussed.

## Memorial to Son

PROVIDENCE, R.I.—Officials of Brown University recently announced receipt of \$85,000 for the establishment of endowment funds in memory

of David Winton Bell, a 1954 graduate who lost his life while flying with the marine corps in June 1955. David Bell was the son of Charles H. Bell of Minneapolis, president of General Mills, Inc., and Mrs. Bell.

## Majority of Trinity Students Receive Aid

HARTFORD, CONN.—Everywhere statistics on the rising cost of a college education are being quoted, but the aid that colleges give to their students often is overlooked.

For example, in the present academic year Trinity College will be responsible for aid to its students in excess of \$300,000. While the college allows in its academic budget more than \$1800 for the education of each student during the year, less than half of this amount is paid by the student through tuition, reports Dr. Arthur H. Hughes, dean of the college.

Scholarships play an important part in Trinity's aid to its 970 students, about 25 per cent receiving some benefit in this way. In the present year, an estimated \$134,800 will come directly from the college to the student in the form of scholarships and tuition remittance. General and special scholarship holders will receive \$120,000, pre-theological scholarship holders \$4200, while competitive scholarships total \$2600 and tuition remittance adds another \$8000.

Loans, fellowships, prizes and campus jobs are other sources of aid.

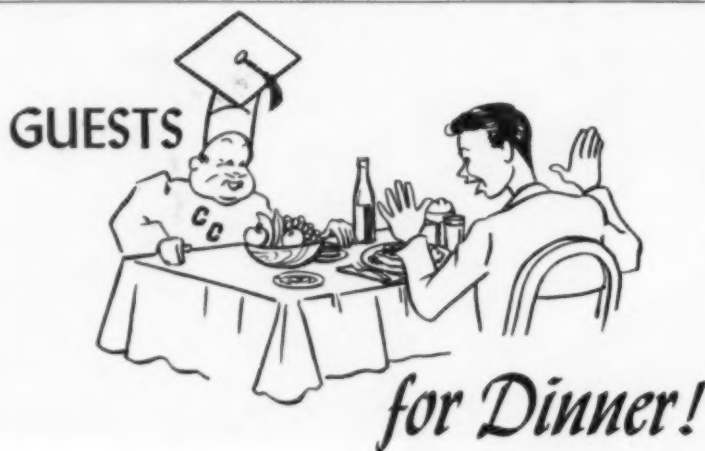
## NAMES IN THE NEWS

Dr. Guy E. Snively, former executive director of the Association of American Colleges, was recently named interim president of Lafayette College, Easton, Pa.

Edward B. McMenemy, until recently acting director of personnel for the International Cooperation Administration in Washington, has been appointed associate provost of Columbia University. He succeeds William C. Fels, who resigned in August to become president of Bennington College, Bennington, Vt.

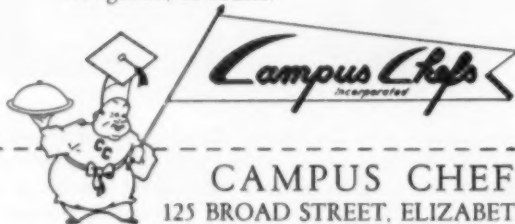
Dr. T. W. Van Arsdale Jr., vice president for development and public relations of Worcester Polytechnic Institute, Worcester, Mass., since April 1956, has been named executive vice president of the institute.

Dr. Frank A. Rose, president of Transylvania College, Lexington, Ky., has been appointed president of the



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University of Alabama, Montgomery. Dr. Rose succeeds Dr. O. C. Carmichael, who resigned last January.

Paul B. Dannacher, formerly business manager of Nebraska State Teachers College at Chadron, has been appointed business manager of Pace



P. B. Dannacher



Stanley H. Mullin

College, New York City. Prof. Stanley H. Mullin, director of student life at Pace, was named director of development. Dr. C. Eugene Morris, formerly director of the counseling center and associate professor of guidance at Springfield College, Springfield, Mass., became dean of students, succeeding Professor Mullin.

Joe Jefferson, placement officer at Massachusetts Institute of Technology, has recently been appointed assistant provost of Columbia University. In his new post, Mr. Jefferson will assist in the formation and administration of a program of financial aid to students.

Dr. Sidney Earle Smith, president of the University of Toronto, last month was named Canada's secretary of state for external affairs, according to an announcement by John Diefenbaker, prime minister. Dr. Smith took over his new duties immediately, heading Canada's delegation at the United Nations General Assembly, which opened in New York in mid-September.

Dr. Robert F. Oxnam, vice president for administrative affairs and associate professor of government at Boston University since 1953, became president of Pratt Institute, Brooklyn, October 1, succeeding Dr. Francis H. Horn, who resigned recently. Dr. Oxnam, son of Bishop G. Bromley Oxnam of the Washington Area of the Methodist Church, was assistant to the chancellor of Syracuse University in 1950-53.

Marvin W. Topping, vice president of Nebraska Wesleyan University, Lincoln, and for six years executive secretary of the American College Public Relations Association, has been appointed assistant director of development at George Washington University, Washington, D.C.

Dr. James Albertson, former member of the administrative staff at Colorado State College, Greeley, has been named

administrative assistant to John R. Emens, president of Ball State Teachers College, Muncie, Ind.

Nelson A. Wahlstrom, controller and business manager of the University of Washington, is now controller and treasurer as a result of a new administrative plan for financial control and business management established by the university's board of regents. Ernest M. Conrad, assistant controller, has been named business manager.

James M. Sheldon Jr., vice president and director of Charles A. Stevens & Co., a Chicago loop specialty store, has been appointed assistant to the chancellor of the University of Chicago. In his new post, Mr. Sheldon will coordinate the external development program of the university. He had been associated for 26 years with Charles A. Stevens & Co.

## Vice Adm.

Ralph Earle Jr., until recently commander of the U.S. Naval Base at Newport, R.I., has been named administrative assistant in the business division of Duke University, Durham, N.C. In announcing the appointment, A. S. Brower, business manager and treasurer of Duke, stated that Admiral Earle will act as intermediary between the university and the many branches of the services with which the university has business relationships. Eventually he will serve as security officer in protecting the classified research documents and materials that form a necessary part of those activities.



Ralph Earle Jr.

William G. Harvey, bookkeeper at Gallaudet College, Washington, D. C., for the last nine years, has been named assistant business manager to succeed Mrs. Thelma Alber, who retired.

President Deane W. Malott of Cornell University announced recently that the buildings and grounds department had been reorganized as the department of buildings and properties with five functional divisions, each headed by a superintendent. The five divisions under the new system include the division of design and construction with John W. Humphreys as superintendent; division of utilities with Richard G. Karch as superintendent; division of building care with Frank L. Mayo as superintendent; division of grounds with George T. Swanson as



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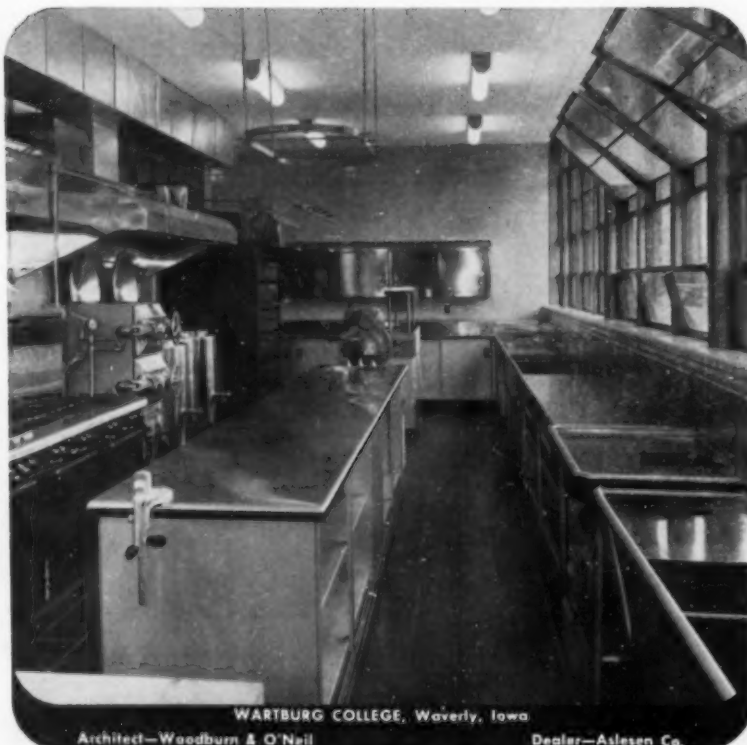
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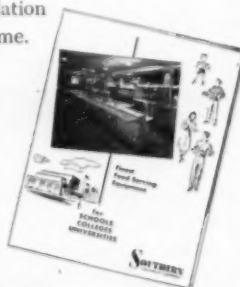
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superintendent, and division of maintenance with James H. Johnson as superintendent in charge of the lower campus and Edward J. Barron as associate superintendent in charge of the upper campus.

Gavin A. Pitt, director of personnel services for General Dynamics Corporation, has been appointed vice president of Johns Hopkins University and Johns Hopkins Hospital, Baltimore. Mr. Pitt has served as assistant to the dean of Brown University, as assistant to the president of that university, and as chairman of the board of trustees of the Brown University Fund. Since then he has held management and personnel administrative positions with several large business organizations. He will fill the post formerly held by J. Douglas Colman, who resigned.



Gavin A. Pitt



D. D. Robinson

Daniel D. Robinson, assistant controller of New York University, has been promoted to controller, George F. Baughman, vice president for business

affairs and treasurer of the university, announces. Mr. Robinson, a certified public accountant, joined the N.Y.U. business staff last year after serving for five years with the accounting firm of Haskins & Sells.

Burton Fink, formerly manager of bookstores for New York Community College of Applied Arts and Sciences, Brooklyn, is now assistant director of campus stores at New York University.

James W. Wine Jr., an attorney, has become director of development and public relations at Park College, Parkville, Mo. Mr. Wine succeeds William B. Dunseth, who resigned to accept a similar position at Hampden-Sydney College, Hampden-Sydney, Va.

Dr. Ernest C. Colwell, vice president and dean of faculties at Emory University and former president of the University of Chicago, has been named president-elect of Southern California School of Theology, Claremont, Calif. He will assume his duties this month upon his return from a series of speaking engagements in England.

Ephraim Edward Davidson succeeds the late Carroll North as controller of





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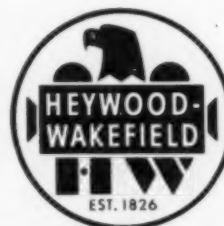
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the University of Mississippi. Mr. North died on July 10.



M. D. Birdsall

M. D. Birdsall, for many years purchasing officer for the Northfield Schools in Massachusetts, became purchasing agent and assistant business manager at Middlebury College, Middlebury, Vt., on September 23. James D. Ross, business manager of athletics, is now assistant business manager.

Louis A. Black, director of maintenance at Maryville College, Maryville, Tenn., for many years, has retired. Dr. Ralph W. Lloyd, president of Maryville, also has announced the appointment of Frank Layman as treasurer and business manager of the college.

Dr. Howard M. Phillips, dean of the graduate school of arts and sciences at Emory University in Georgia, is the new president of Alabama College, Montevallo.

Joe H. Barber Jr. has been named to the post of controller of Mississippi State College for Women, Columbus.

Victor J. Danilov, manager of public relations at Illinois Institute of Technology and Armour Research Foundation, Chicago, has been appointed director of public information at the University of Colorado, Boulder. Mr. Danilov's new duties became effective in September when he succeeded John W. Bartram, who was named director of the university budget last March.



Victor J. Danilov

Wesley A. Bugg, former examiner for the state office of audits and accounts of South Dakota, has been named chief accountant for South Dakota State College, Brookings. Mr. Bugg will be responsible for all the departmental and fund accounting of the college. Concurrent with the appointment of the chief accountant, the responsibilities of Clyde R. Wisch, personnel and business manager, have been changed to full-time classified personnel management. Herman Ronshaugen, cashier in the business office for many years, has been named to the post of bursar.

W. F. Klugh, treasurer of Converse College, Spartanburg, S.C., retired recently and was succeeded by J. L. Rogers.

Edwin H. Griffith, formerly embassy official and executive with UNRRA and later executive director of the National Conference of Christians and Jews in Pittsburgh, has become director of development and public relations at Western College for Women, Oxford, Ohio.

R. K. Shaw, business manager of Florida State University, Tallahassee, recently announced several promotions within the business office of the university as a result of reorganization.

Dr. Harry Day, formerly director of auxiliaries and assistant business manager, has resigned to become principal of the University Demonstration School on the campus. Gerald O. Jones, formerly university auditor, has been named director of auxiliaries and assistant to the business manager to fill the vacancy created by the departure of Dr. Day. Ray E. Green Jr. was promoted from university resident engineer to assistant business manager. Frank Glenn, for the last eight years an engineer in private practice in Tallahassee, has joined the university staff as resident engineer, and Jerry H. Leon-

# TOLEDO

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### FOR SPECIALIZED NEEDS



Modern cafeteria equipped with strong, attractive Toledo Tables and Chairs.

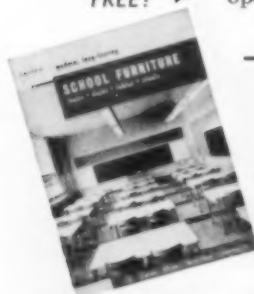


University electronics laboratory equipped with Toledo Chairs, Stools and Tables.

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for cafeterias, commercial departments, laboratories, other special uses

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SCHOOL \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_

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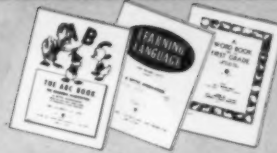
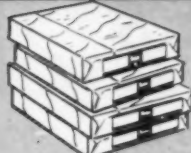
$$\begin{array}{r} + 12 \\ + 12 \\ \hline 24 \end{array} \quad \begin{array}{r} + 8 \\ + 8 \\ \hline 16 \end{array} \quad \begin{array}{r} + 9 \\ + 7 \\ \hline 16 \end{array}$$

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Our representative will gladly assist in any problem you may have . . . or if you prefer, write on your letterhead for our illustrated catalog.

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ard, formerly procedures analyst in the business office, has taken over the auditor's post.

Richard C. Debus, for the last two years assistant business manager and director of staff personnel and auxiliary enterprises at the University of Omaha, has been named business manager of Russell Sage College, Troy, N.Y.



Richard C. Debus

Dorothy L. Romoser, formerly director of food service at Baldwin-Wallace College, Berea, Ohio, and Heidelberg College, Tiffin, Ohio, has been named party arranger in the catering department of Buddies Food Services, Inc., Toledo, Ohio.



John F. Olson

Dr. John F. Olson, associate professor of Bible and religion at Syracuse University, was named assistant to Dr. William P. Tolley, university chancellor.

The position has been vacant since 1953 when Robert F. Oxnam resigned to become a vice president of Boston University.

Lloyd Morey, president emeritus and former comptroller of the University of Illinois, has completed his service to the state of Illinois as interim auditor of public accounts and consultant on fiscal reorganization. At his home in Urbana, Ill., he is resuming his work as educational and accounting consultant.

Lloyd Bray, manager of the student supply stores and director of the college union of East Carolina College, Greenville, N.C., died of a heart attack.

Rev. John E. Holland, S.J., treasurer and procurator of the University of Scranton, Scranton, Pa., died recently following a heart attack suffered while driving his automobile near Scranton.

Ernest T. Eaton, former lieutenant governor of Montana and a founder of Rocky Mountain College, Billings, Mont., died August 23 while visiting his son in Billings.

Joseph B. Cavallaro, chairman of the board of higher education of New York City since 1953, died recently as a result of a cerebral hemorrhage.

George Gilman Davis, former president of Lombard College, Galesburg, Ill., died recently at the age of 75.





## ON TOP OF THE LADDER

PROFESSIONAL PAINTERS everywhere realize that the success or failure of a particular job is directly dependent upon their skill and the quality of paints they have with them . . . on top of the ladder.

And we at Devoe, who have devoted the past 203 years exclusively to the paint industry, are extremely gratified and proud of the confidence you have shown in Devoe products.

But we are not content to rest on our laurels. Today, Devoe is investing millions of dollars in research, seeking to discover new and better products, searching for higher quality control and advancing the technical operation of our plants.

Outstanding products which are "firsts" with Devoe are—Wonder-Pruf Masonry Finish (pat. pending), the latest in wall-sealing finishes; Vinyl Wonder-Tones, the world's fastest paint; and improved Wonder-matic Colors that really sell and satisfy customers.

Contact your Devoe supplier today . . . his aim and ours is to keep you and your crew "on top of the ladder."



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203 years of paint leadership!  
DEVOE & RAYNOLDS COMPANY, INC.

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Vol. 23, No. 4, October 1957

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## DIRECTORY OF ASSOCIATIONS

### National Association of Educational Buyers

President: J. S. Reaves, University of Florida; executive secretary: Bert C. Ahrens, 1461 Franklin Ave., Garden City, N.Y.  
Convention: May 7-9, Leamington Hotel, Minneapolis.

### College and University Personnel Association

President: Diedrich K. Willers, Cornell University; secretary-treasurer: Shelton F.

King, Carnegie Institute of Technology; executive secretary: Donald E. Dickason, University of Illinois, Permanent headquarters, 809 S. Wright St., Champaign, Ill.; Kathryn Hansen, editor, C.U.P.A. Journal.  
Convention: 1958, Purdue University.

### National Federation of College and University Business Officers Associations

President: C. O. Emmerich, Emory University; vice president: Kurt Hertzfeld, University of Rochester; secretary-treasurer: G. W. Green, California Inst. of Technology.

### National Association of College Stores

President: F. J. Worthington, Princeton University Store, Princeton, N.J.; general manager: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.  
Convention: April 8-11, Biltmore Hotel, Los Angeles.

### Association of College and University Housing Officers

President: William C. Wells, University of Maine; secretary-treasurer: Leonard A. Schadt, University of Michigan.

### National Association of Physical Plant Administrators of Universities and Colleges

President: W. P. Wetzal, Temple University; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

### Associations of College and University Business Officers

#### American Association

President: William M. Jones, North Carolina College; secretary: B. A. Little, Southern University.

Convention: April 24-26, Willard Hotel, Washington, D.C.

#### Central Association

President: Parker Hall, University of Chicago; secretary-treasurer: Ralph Olmsted, Evansville College, Evansville, Ind.

Convention: May 4-6, Edgewater Beach Hotel, Chicago.

#### Eastern Association

President: John Schlegel, Lafayette College; secretary-treasurer: Kurt M. Hertzfeld, University of Rochester.

Convention: Dec. 1-3, Hotel Shoreham, Washington, D.C.

#### Southern Association

President: Claude M. Reaves, Huntingdon College; secretary: C. O. Emmerich, Emory University.

Convention: March 30-April 1, Statler Hotel, Dallas, Tex.

#### Western Association

President: Kenneth A. Dick, University of Idaho; secretary: Robert B. Gilmore, California Institute of Technology.

### Association of College Unions

President: George Donovan, Pennsylvania State University; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

### Canadian Association of University Business Officers

President: G. A. Grimson, controller, McGill University; secretary-treasurer: F. J. Turner, Carleton College.

Convention: June 5-7, McMaster University, Hamilton, Ont.

### American College Public Relations Association

President: James R. Jordan, State University of Iowa; executive secretary: W. Noel Johnston, 1785 Massachusetts Ave., Washington, D.C.

## NOW...the Shower Head that's

### MOST SATISFYING to every student...

• Students look forward to shower bathing that will banish fatigue from work or play and restore the feeling of fitness. But just *any* shower head won't satisfy. To win enthusiastic approval, provide the *Act-O-Matic* cone-within-cone spray that delivers an evenly distributed and never distorted shower, directed as desired, and with fingertip volume control.

### ...and BEST FOR YOU because:

- 1• Automatically Self-Cleaning—
- 2• No Clogging—No Dripping—
- 3• Most Satisfying Spray—
- 4• No Stream Distortion—
- 5• Finger-Tip Control—
- 6• Spray Direction Adjustable—
- 7• Big Water Economy—
- 8• Saves Costly Fuel—
- 9• Requires No Servicing—
- 10• Simple, Reliable, Long-Lasting—
- 11• Easily, Quickly Installed—
- 12• Vandal-Proof Models Available



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**SLOAN VALVE COMPANY**  
4348 WEST LAKE STREET • CHICAGO 24

## STEELCASE furniture for busy people



featuring functional design, exceptional construction  
and smart, contemporary styling

Deans, chief business officers and college and university presidents, like their executive counterparts in business, set high standards of efficiency and beauty for the furniture they use in their offices. Steelcase office furniture meets these requirements—perfectly and permanently.

Each unit presents a fresh, new look, its beauty accented by smart Sunshine Styling colors. Each unit is deliberately designed to permit more work, to offer more fingertip conveniences that help busy people get through a busy day. And, each unit is standardized with respect to color, style, design and size, so that the pieces you get today may be used interchangeably with those you will need tomorrow.

Serving the very finest names in business, education,  
industry and commerce for over forty-five years.

## STEELCASE INC

Grand Rapids, Michigan

AUTHORIZED DEALERS IN PRINCIPAL CITIES • In Canada: CANADIAN STEELCASE COMPANY, LTD., Toronto

Vol. 23, No. 4, October 1957



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*A note from you will bring you  
a copy of our new full-color  
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Just write Department C.*

Alone in  
all the world...  
"CARILLON  
AMERICANA"\*

Until you hear "Carillon Americana," you simply cannot know the full beauty and inspiration of carillon music. Introduced at Florida's famed

**SINGING TOWER**

the "Carillon Americana" places entirely new tone colors at the command of the artist at the console. To bell tones of traditional majesty, the carillonneur can now add the enchanting voices of the plucked harp and silvery celesta. Moreover, he can vary the harmonic content of each note and chord at will. The result is a musical panorama far richer than carillons have ever offered before.

The "Carillon Americana" thus gives a wider choice to those interested in acquiring fine carillons for churches, schools or colleges. Whatever your requirements in bell instruments, you'll find an appropriate answer among the many Schulmerich instruments, ranging from the new "Carillon Americana" to automatic single-bell instruments for liturgical use. Your inquiry will receive prompt attention.

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CARILLONS**



# classified advertising

## POSITIONS WANTED

**Bookstore Manager-Purchasing Agent**—45 years old, college graduate, several years experience; also experience with university printing and public relations department. Write Box CW 311 COLLEGE AND UNIVERSITY BUSINESS.

**Business Manager**—Experienced; success in managing, government construction; proven ability in financial reports, investments, supervision, purchasing, bookstore, maintenance, dining hall; desires change. Write Box CW 329, COLLEGE AND UNIVERSITY BUSINESS.

**Business Manager, Treasurer, Administrative Assistant**—College, university, education board, foundation, etc.; eight years' experience all phases business office administration, including auxiliaries, maintenance; enjoys state board level systematizing, consultant, research, auditing type work; manuals; presently college business manager, 1490 enrollment; University Accounting Degree. Write Box CW 368, COLLEGE AND UNIVERSITY BUSINESS.

**Physical Plant Superintendent or Assistant in Large Institution**—College graduate in engineering, construction experience, nine years of plant management; interested in similar position in western state. Write Box CW 358, COLLEGE AND UNIVERSITY BUSINESS.

**Public Relations**—Two years as weekly newspaper editor; three years as managing editor of national trade magazine; complete knowledge of editorial techniques; M.A. history; married, two children; age 31; write fully, describing position, maximum salary. Write Box CW 367, COLLEGE AND UNIVERSITY BUSINESS.

## POSITIONS OPEN

**Assistant Business Manager, Purchasing Agent**—Position available in Minnesota liberal arts college; opportunity for experience in all phases of college business management; applicant should be a college graduate; college administrative experience preferred though not essential. Write Box CO 246, COLLEGE AND UNIVERSITY BUSINESS.

**Assistant to the Director-Building Services Division**—College graduate Degree in Engineering, Business Administration preferred; to fill key position at Wayne State University; experience desirable in building maintenance, engineering, management of custodial functions and related

activities; 30 to 50 years of age; excellent fringe benefits include liberal vacation, hospitalization, insurance and sick leave; salary open; forward personal data sheet to: Personnel Officer, WAYNE STATE UNIVERSITY, Detroit 2, Michigan.

**Assistant Food Service Director**—For residence college of 700; send photo and resumé. Write Box CO 235, COLLEGE AND UNIVERSITY BUSINESS.

**Assistant Treasurer**—General college business administrative position with duties of comptroller in small New England liberal arts college; accounting or college business management background or experience necessary. Write Box CO 239, COLLEGE AND UNIVERSITY BUSINESS.

**Building and Grounds Superintendent**—Small state college in New England moving to new campus next September; fifty acre campus not fully developed; six buildings—no dormitories; beginning salary \$6,000 to \$8,000. Write Box CO 236, COLLEGE AND UNIVERSITY BUSINESS.

**Business Manager and Treasurer**—Small state college in New England moving to new campus next September; emphasis on personnel work and plant and campus maintenance, but must understand financial records and budgeting; budget approximately \$1,000,000; beginning salary \$8,000 to \$10,000. Write Box CO 238, COLLEGE AND UNIVERSITY BUSINESS.

**Dietician**—Top caliber ADA dietician to work in menu and testing department of national catering company; relocate; must be personable and capable; top salary, benefits, working conditions. Write Box CO 237, COLLEGE AND UNIVERSITY BUSINESS.

**Food Service Directors**—Rapid growth of the leading quality minded college food service catering company creates a need for successful, young, male college or university food service directors; highest initial remuneration, plus rapid advancement in return for long hours of loyal work; character and personality traits more important than length of experience; relocate with consideration given to preference. Send resumé to Box CO 211, COLLEGE AND UNIVERSITY BUSINESS.

**Residence Hall Director**—Young, experienced male wanted; responsibilities include general supervision of all residence halls, housing approximately 700 students; in addition, there would be responsibilities in the office of student personnel services concerned with counseling, placement, etc.; initial salary—\$5,500; plus modern 3 room apartment; position open immediately. Write Box CO 234, COLLEGE AND UNIVERSITY BUSINESS.

The rates for classified advertisements are: 20 cents a word; minimum charge, \$4. (No charge for "key" number.)

Forms close 25th of month preceding date of issue.

**COLLEGE AND UNIVERSITY BUSINESS**  
919 N. Michigan Avenue, Chicago 11, Ill.

COLLEGE and UNIVERSITY BUSINESS



# WHAT'S NEW

October 1957

Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 96. Circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

## Water Fountains Are Redesigned

The line of Halsey Taylor face-mounted and semi-recessed drinking fountains is redesigned and restyled to harmonize with modern architectural



planning. Streamlined design and color make the line attractive and adaptable to all needs. The Halsey W. Taylor Co., Warren, Ohio.

For more details circle #42 on mailing card.

## Ten Products in Quaker Institutional Foods

The Quaker Oats Company is marketing a complete line of institutional products under the "Big Q" trademark. Consisting of ten new products, five cereals and five mixes, the new line is packed in distinctive blue carton packages with sealed inner liners. The products are specially formulated and packaged for quantity food preparation and include Aunt Jemima Portion Packed Pancakes and Quick Quaker Oats. The mixes not only save time in preparation but permit precise cost and quality control. The Quaker Oats Co., Merchandise Mart, Chicago 54.

For more details circle #43 on mailing card.

## Dispenser for Hot Water Now Available

Hot drink service is facilitated with the new Cooler-Hot hot water dispenser. It is operated in conjunction with pressure water coolers already installed and eliminates the expense of combination hot and cold units. Cooler-Hot is a separate unit which is simply connected to any standard pressure cooler. It is designed like a miniature water cooler with a drink height parallel to that of standard coolers and fittings of standard size. Sunroc Corporation, Glen Riddle, Pa.

For more details circle #44 on mailing card.

## Drymaster With Rinse Dry for Dishwashing Machines

Drymaster is the name of a compact hydraulically powered instrument which becomes an integral part of the dishwashing machine. With it a small but accurate volume of Rinse Dry is added to the final rinse water for sparkling dishes. Rinse Dry is a concentrated drying agent designed to dry glasses, silver, china and plasticware, without spots, in any dishwasher. Economics Laboratory, Inc., 250 Park Ave., New York 17.

For more details circle #45 on mailing card.

## Chair Storage Truck Doubles as Coat Rack

Seventy-two folding chairs can be loaded onto the new American Seating Folding-Chair Storage Truck. While chairs are in use, the same unit serves



as a mobile coat-and-hat rack. Constructed of two by two by 1/2 inch steel angles and heavy steel tubes welded and bolted, the truck is finished in neutral blue gray enamel. It is fitted with heavy duty five-inch rubber-tired casters for easy mobility and is 30 inches wide, 60 inches long and 78 inches high when loaded. American Seating Co., Grand Rapids 2, Mich.

For more details circle #46 on mailing card.

## Hot Drink Handle Cup in China-Cote Quality

A new China-Cote handle cup for hot drinks is now available from Lily-Tulip. Made in the standard China-Cote Big Leaf design in a dark green color, the new handle cup is offered in six and eight-ounce sizes. The China-Cote strength and rigidity make the cup ideal for all feeding operations where hot-strength paper cups are used. Lily-Tulip Cup Corp., 122 E. 42nd St., New York 17.

For more details circle #47 on mailing card.

## Vinyl Tile Sealer Gives Excellent Wax Base

Flor-Life is a new vinyl tile sealer which dries to a tack-free, buffable finish in 15 to 20 minutes. It is a colorless, heavy-bodied, non-yellowing product which provides an excellent base for wax and will not darken even the lightest floors. Flor-Life improves the wearing qualities of wax and enhances the appearance of the final wax coat. It may be used on terrazzo and linoleum as well as on pure vinyl and vinyl asbestos tile. Multi-Clean Products, Inc., 2277 Ford Pkwy., St. Paul 1, Minn.

For more details circle #48 on mailing card.

## Automatic Tea Maker Makes High Quality Brew

Cooperation between the National Restaurant Association, the Tea Council of the U.S.A., Inc., and the Food Machinery and Chemical Corporation resulted in the production of an automatic tea maker designed to serve uniformly better tea with less trouble in institutions. The machine is fully automatic in operation and makes either hot or iced tea immediately available at all times.

The FMC TeaMaker is a stainless steel unit 16 inches wide, 21 inches deep and 30 1/2 inches high, without legs. Four-inch legs are available if desired. The self-contained, thermostatically controlled electric water heater maintains a constant supply of 200 degree F. water, which heat is described as ideal for



making tea. With the eight-ounce infuser, 500 cups of hot tea or 400 glasses of iced tea can be made in an hour. Food Machinery & Chemical Corp., Kitchen Equipment Dept., Hoopeston, Ill.

For more details circle #49 on mailing card.

(Continued on page 74)

## What's New . . .



### Art and Bookkeeping Desks in Royal Metal Line

The Royal Metal school furniture line now includes an art desk with adjustable top and a bookkeeping desk with spacious work surface and storage space.

Both desks are modern in design and constructed of durable steel with Fibresin or Maple grained plastic damage-resistant tops. Both are available in attractive colors.

The adjustable top on the art desk has a full lock double ratchet support permitting seven different positions, in addition to flat. The 35 by 24-inch working surface gives the bookkeeping desk a generous top. Both desks have rubber foot glides and both are easy to keep clean according to the manufacturer. **Royal Metal Mfg. Co., Dept. S.D., One Park Ave., New York 16.**

For more details circle #30 on mailing card.

### Easy-Cleaning Pivot Sash Now Available in Aluminum

The dependable Williams Pivot Sash, which permits the cleaning of windows from the inside of a room at floor level, is now available in aluminum. This is in addition to the original wood window, in use in hospitals, schools and other institutions for the past fifty years. The aluminum version was developed to satisfy the demand for the pivot sash window in metal since the pivoting feature facilitates ventilation and permits savings in time and insurance rates in window cleaning. The new window can have various muntin arrangements and may be fitted into prepared openings in new buildings, or may replace windows in older institutions.

Fabricated of aluminum extruded sections by Kesko Products, custom fabricators of monumental windows, the new version is available in brushed satin, satin Alumilite or caustic etch finish. The window is completely weather sealed. For ventilation purposes it in-



corporates all the advantages of a double hung window with each light of the sash pivoting independently. The windows may be single glazed or glazed with double insulating glass. **The Williams Pivot Sash Co., 1827 E. 37th St., Cleveland 14, Ohio.**

For more details circle #31 on mailing card.

does your equipment give you a spot

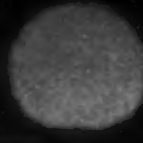
LIKE THIS?

OR THIS?

Extremely bright snow white, flickerless, sharp edged from hood spot to hood.



Much light wasted by masking or blurring the beam to reduce spot size. Usually a fuzzy edge and irregular shape.



## THE BRIGHTEST SPOTS in any

AUDITORIUM • ARENA  
STADIUM • THEATRE • BALLROOM

The Choice of Practically All Ice Shows  
and Leading Traveling Attractions

*Strong*

### SUPER-TROUPER



The first D. C. high intensity automatic arc spotlight with built-in power conversion unit. Far surpasses in brilliancy of spot any vertical arc type and equals or exceeds many of the large theatre type operating at much higher amperages. Fully automatic arc control. Burns 80 minutes without retrimming. Available in 220 or 110-volt A.C. models.

*Strong*

### TROUPER ARC SPOTLIGHT



Adjustable self-regulating transformer in base. Fully automatic arc control. Burns 80 minutes without retrimming. Plugs into 110-volt outlet.

*Strong*

### TROUPERETTE INCANDESCENT SPOTLIGHT



Plugs into 110-volt outlet.

### THE ONLY SPOTLIGHTS WITH ALL THESE EXCLUSIVE ADVANTAGES

- \* You get the light you are paying for. Single control two-element variable focal length objective lens system. The brilliance of the spot actually increases as it is reduced in size.
- \* Requires no heavy rotating equipment.
- \* Horizontal masking control can be angled 45° in each direction from horizontal.
- \* Constructed for permanence.
- \* Portable. Mounted on casters.
- \* Fast-operating & slide color beam-erasing.
- \* Easily disassembled for shipping.

Write for full literature or see your theatre or stage equipment dealer now.

**THE STRONG ELECTRIC CORPORATION**

50 City Park Avenue

Toledo 1, Ohio

### Drapery Heading Seam Withstands Excessive Use

LuXout Light Control Plastic Draperies are now offered with a new "Greek Key" heading seam. Designed to withstand an excessive amount of punishment without signs of weakening, the new seam was developed especially for school use where draperies are often operated by students. The vinyl plastic flameproof draperies give the classroom an attractive appearance when open and provide complete dark control when closed. The "Greek Key" heading seam was created by an exclusive fabrication method now being patented. **Plastic Products Inc., 1822 E. Franklin St., Richmond 23, Va.**

For more details circle #32 on mailing card.

(Continued on page 76)



Model 426 Solid Kumfort Chairs That Fold in the Anderson Room

## SOLID KUMFORT *Chairs that fold*

in the **MICHIGAN UNION**  
UNIVERSITY OF MICHIGAN, ANN ARBOR



Model 426  
Wood

**THE MICHIGAN UNION** chose Solid Kumfort Model 426 Chairs That Fold because of their attractive appearance, light weight and the ease with which they may be arranged for other purposes or may be stored in a small space.

Select hardwood frames joined by the famous Rastetter Hinge and Brace construction make these chairs far stronger than conventional chairs of equal weight, so they stay out of the repair shop. For up-to-the-minute style, outstanding beauty, cushioned comfort and long life, plus mobility . . . choose Solid Kumfort whenever you need chairs for public seating. They are better chairs for any purpose whether they are ever folded or not.



Fold Flat

**LOUIS RASTETTER & SONS COMPANY**

FINE FURNITURE THAT FOLDS • ESTABLISHED 1881

Use the coupon at right to ask for Portfolio showing complete line of Magnesium and Wood Chairs That Fold.

THE  
**SOLID KUMFORT**  
FOLDING CHAIR



### MAIL THIS COUPON

Louis Rastetter & Sons Company

1326 Wall Street  
Fort Wayne 1, Indiana

- ☐ Please send complete line Portfolio and prices.  
☐ Have your representative call.

SCHOOL \_\_\_\_\_ BY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_



## What's New ...



**FOLDOORS** at Harvard University, Cambridge, Mass.



**FOLDOORS** at Indiana University Medical Center, Indianapolis, Ind.



**FOLDOORS** at Waynesville (North Carolina) High School

● More and more schools and colleges are turning to FOLDOOR to gain added classrooms or other double-duty space.

Whether you are building or remodeling to get more room, see your FOLDOOR distributor (listed in the yellow pages)—or write us direct.

**HOLCOMB & HOKE MFG. CO., INC.**  
1545 Van Buren Street • Indianapolis 7, Indiana  
In Canada: Foldoor of Canada, Ltd., Montreal 26  
Installing distributors in all principal cities



### Adjustable Shelving Units Match Unit Ventilators

Designed as matching equipment for the Trane line of unit ventilators, the new Trane shelving units have a special shelf adjustment providing over twenty



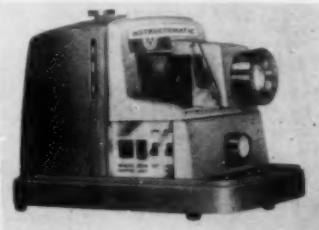
settings. This feature makes the units adaptable to books and other materials of various sizes.

Doors slide open at finger tip touch through the use of two plastic buttons set in the bottom. The top is finished in a marproof hard surface plastic which withstands everyday use. A polished aluminum strip has been added to hide shelving joints and to form a non-slip clamp for the finish-covering on top of the shelving. Shelving sections are available with or without doors in 28 and 32-inch heights. The Trane Company, La Crosse, Wis.

For more details circle #53 on mailing card.

### Automatic Slide Projector With Remote Control

Remote control, which enables the operator to turn the projector on or off and to change slides from across the room, is a feature of the new Viewlex "Instruct-o-matic" slide projector. The unit is designed for use with two by two or



Bantam slides and has brilliant 500-watt illumination with completely automatic operation. The automatic timer will operate at any interval up to 60 seconds, allowing the operator to leave the room if desired. Slides are changed smoothly, quietly and without effort in forward, reverse or repeat sequences through the sensitive touch bar control. Ruggedly constructed for strenuous use, the "Instruct-o-matic" comes in two-tone forest green with a slip-on aircraft luggage type case. Viewlex, Inc., 35-01 Queens Blvd., Long Island City 1, N.Y.

For more details circle #54 on mailing card.

(Continued on page 78)



# How to teach sunbeams new tricks in classroom daylight control...



Wayne University's new Community Arts Building in Detroit, Michigan, is a distinguished example of modern school architecture. Note how Owens-Illinois Glass Block panels add functional beauty to the exterior design.



Community Arts Building, Wayne University, Detroit, Michigan.  
Architect: Suren Pilafian, A.I.A.

Toplite Roof Panels flood this deep classroom with soft, evenly distributed daylight. Students attending sculpture classes in Wayne University's new Community Arts Building are more relaxed because they are not distracted by glare and harsh contrasts.

Inside, glass block panels provide glare-free, diffused daylight. This classroom, designed for flexibility, can be easily darkened with drapes or shades for audio-visual instruction.

In today's new schools, classroom *comfort* and maximum *flexibility* are of prime importance. Owens-Illinois Glass Block and Toplite Roof Panels provide the ideal solution to both needs.

All year 'round, scientifically designed prisms in glass block panels and Toplite Roof Panels work wonders with raw, harsh sun rays. Brightness and eyestraining contrasts are kept at comfortable levels in all parts of the classroom. Solar heat is filtered out during hot Spring and Fall days... students are insulated from cold winter winds (equal to an 8"-thick masonry wall). Glass Block-Toplite classrooms are quickly converted with drapes and shades into an ideal setting for audio-visual programs.

If you are planning to build a new school or modernize an old one, be sure to investigate the unsurpassed daylighting advantages of Owens-Illinois Glass Block and Toplite Roof Panels. Write for details: Kimble Glass Company, subsidiary of Owens-Illinois, Dept. CU-10, Toledo 1, Ohio.



GLASS BLOCK AND TOPLITE ROOF PANELS  
TWO **①** PRODUCTS

**OWENS-ILLINOIS**  
GENERAL OFFICES • TOLEDO 1, OHIO

## What's New . . .

### Single-Brush Hilboy Features Low Design

Measuring only 9½ inches in height, the single-brush Hilboy floor machine is designed for all floor cleaning, including areas usually inaccessible. Many interesting engineering innovations have



gone into the construction of the new Hilboy. The specially developed low-design motor by G-E is built into a body which can reach under furniture and equipment for scrubbing, polishing, steel wooling, sanding or grinding floors. The pistol-grip handles are scientifically designed to reduce hand fatigue and to start the motor with ordinary finger-tip pressure. Individually suspended wheels are instantly retractable for easy portability. The direction or rotation can be re-

versed by a simple switch action to retard brush wear. The new Hilboy is available in 17 and 21-inch diameters. Hillyard Chemical Co., St. Joseph, Mo.

For more details circle #55 on mailing card.

### Food Waste Disposers for Institutional Use

A new 1½ h.p. disposer has been added to the Herlex line of Food Waste Disposers for institutional use. The new Model 4400 grinds all waste by specially designed continuous flow grinders which screen the waste centrifugally around its 34 inch perimeter. Large particles are trapped between the grinders until completely ground prohibiting clogging or slowing down. The unit is simple to maintain and easy to install as it is not necessary to bolt it to the floor. Herlex Mfg. Co., Willard Rd., Norwalk, Conn.

For more details circle #56 on mailing card.

### Classroom Screen Fills Many Functions

The new Radiant Du-All Classroom Screen incorporates a simple adjustable Swiv-L-Bar which permits it to be used with a tripod floor stand, set upon a desk or table, or hung from a wall. The screen has a flannel backing offering many possibilities for visual demonstration and instruction. The Swiv-L-Bar also adjusts

(Continued on page 80)

the screen to the proper projection angle. The screen has a special silver aluminized surface for projection in normally lighted classrooms and the frame is natural oak finished wood. The Du-All is available in three sizes. Radiant Mfg. Corp., 2627 W. Roosevelt Rd., Chicago 8.

For more details circle #57 on mailing card.

### Utility Box of Molded Fiberglass

Fiberglass is used to form the new lightweight utility box recently introduced for institutional use. It is designed for use in home economics departments and laboratories as a storage box for in-work projects, equipment and supplies. The seamless molded box is easy to keep clean and can be compactly stacked



when not in use. A stack of 24 empty boxes is only 28 inches high. Recessed hand grips at each end facilitate carrying. Samuel Olson Mfg. Co., Inc., 2418 Bloomingdale Ave., Chicago 47.

For more details circle #58 on mailing card.

## Why the great growth of MOSINEE TURN-TOWL SERVICE in college washrooms?

1. The towel itself will outperform any other towel for its ability to absorb water quickly, thoroughly.
2. Controlled Turn-Towl cabinet dispensing cuts towel consumption from 40% to 50%.
3. Cabinet holds 417 towels. This, plus fewer used towels to handle, keeps maintenance time and costs at a minimum.
4. Low cost of Turn-Towl service benefits citizens who pay college costs.



Find out how Turn-Towls can save you money . . . improve your washroom sanitation. Get complete details by mailing the handy coupon below.

CLIP THIS COUPON AND MAIL IT TODAY

### BAY WEST PAPER COMPANY

1110 West Mason Street, Green Bay, Wisconsin

Please send me the free Turn-Towl Kit with complete information on Turn-Towl Service.

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Firm .....

Address .....

City ..... Zone ..... State .....



... will show

**NOTHING EQUALS THE WARMTH OF WOOD**



**OR ITS ABILITY TO RETAIN BEAUTY AND STRENGTH**



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**Designed for today AND tomorrow—**

- Please mail complete information
- about Huntington furniture to: CUB
- Company 10-57
- City \_\_\_\_\_
- Attach to your letterhead and mail to:
- Huntington Chair Corporation, Huntington, W. Va.

## NEW *Streamlined* STYLING

**MODERN** in color  
**MODERN** in design  
**TAYLORED** for you



These newly designed face-mounted models and semi-recessed types now make the Halsey Taylor line most complete! This re-styling adds a distinct touch of streamlined beauty to time-proved functional utility and supplements contemporary architectural planning. Write for catalog or see Sweet's.

The Halsey W. Taylor Co., Warren, Ohio



76



*Halsey Taylor*  
**FOUNTAINS**

ENGINEERED THE BEST TO  
MEET EVERY SERVICE TEST



## What's New . . .

### Disposable Treated Cloth for Floor Maintenance

A new disposable treated cloth and sweeping tool have been designed for efficient, dustless sweeping. The tool permits floor or wall areas to be cleaned without oiling, dampening or chemical sprays. The Masslinn cleaning cloth, a combination of cotton and rayon fibers,



is uniformly impregnated with a special emulsion which picks up dust and dirt without scattering or leaving deposits on floors or edges of rugs.

The cloth is used with a new sweeping tool constructed with an all-directional swivel joint which permits it to reach low spots, corners and between furniture at any angle. The large front surface cleans large areas with each sweep while the narrow side permits cleaning in restricted areas. Chicopee Mills, Inc., Non-Woven Fabrics Div., 47 Worth St., New York 13.

For more details circle #59 on mailing card.

## EASE PARENT BURDEN OF RISING EDUCATION COSTS

As costs of tuition, room and board rise unavoidably, more than 500 colleges and schools have helped parents meet this problem by adopting The Tuition Plan. The Plan operates at no expense to the college. It offers parents a welcome alternative to lump-sum payments—a convenient monthly payment Tuition Plan contract.

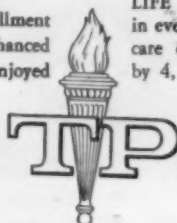
In addition to a fully-paid enrollment at the start of every term and enhanced parent good will, colleges have enjoyed

these new benefits of The Tuition Plan:

**COLLEGE HAS NO FINANCIAL LIABILITY . . .** on parent-signed contracts, colleges need not refund in event parent defaults on contract.

**A FOUR, THREE OR TWO YEAR PLAN . . .** now may be offered under one flexible contract.

**LIFE INSURANCE INCLUDED . . .** in event parent dies, life insurance takes care of total remaining costs covered by 4, 3 and 2 year contracts.



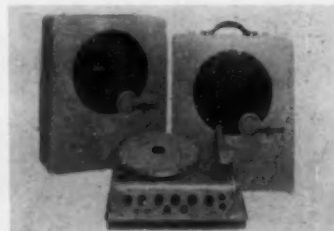
Write today for descriptive brochure.

**THE TUITION PLAN, INC.**

347 FIFTH AVENUE, NEW YORK 16, N. Y.

### Promenade Sound System Is Lightweight Portable

A lightweight, single-unit sound system is offered in the portable Promenade Model 25V-8. It includes most of the new features of the Commander unit and features a 24-watt amplifier and dual 12-inch speakers. Innovations in the new



Promenade model include the Strobe-selector center drive continuously variable speed to eliminate warm-up drift; cushioned spring rubber feet to eliminate floor vibration, and separate tone controls on the microphone input for voice clarity. Controls are color coded for easy identification and separate knobs control phonograph treble and bass. Califone Corporation, 1041 N. Sycamore Ave., Hollywood 38, Calif.

For more details circle #60 on mailing card.

(Continued on page 82)



HOLOPHANE *Custom-Engineered*  
Lighting for Schools & Colleges



No. 640

**For Gymnasiums  
and other High  
Mounting Areas  
HOLOPHANE  
HIBAY®  
Reflector for  
Mercury Vapor  
Lamps**

Holophane engineers, pioneers in school lighting for over sixty years, present another important contribution — a new HIBAY Reflector for 400 Watt Mercury-vapor lamps . . . This unit consists of only 2 parts: (1) ventilated socket yoke (2) smooth prismatic reflector with sealed metal cover. Simplified construction permits easy installation and economical maintenance. Reflector surface is kept clean by upward draft induced by open design. Exposed socket assembly assures rated lamp life. Light source is deep-shielded, eliminating glare.

For Better Lighting



... Be Specific



The Holophane engineering staff offers counsel, in cooperation with architects and engineers, on any educational lighting project . . . To be sure of quality in lighting products look for the name Holophane impressed on each piece.

**HOLOPHANE**  
COMPANY, INC. • Lighting Authorities Since 1898

342 Madison Ave., New York 17, N.Y.

THE HOLOPHANE CO., LTD., 418 Kipling Ave. 50, Toronto 14, Ontario



## What's New . . .



### The Insured TUITION PAYMENT PLAN

This is the prepayment plan that brings the parent low-cost life and disability insurance protection, plus a monthly budget provision that extends to the final month of his educational expenses four or more years hence. Used today in many of the best-known colleges and preparatory schools, it has proven most valuable to administrative officers by providing them with a dignified, parent-approved method which:

- 1 alerts parents to their financial obligation when the student is accepted for admission;
- 2 offers parents a convenient and logical plan for meeting that obligation;
- 3 assures the parent (and thus the college) that he will have adequate funds with which to meet his college obligations in full and on time;
- 4 preserves the traditional relationship between the college and the parent—debt-free and direct.

*Individualized descriptive literature for mailing to the parents of incoming students is furnished for each preparatory school, college or university.*

#### WRITE TODAY FOR DETAILS

We should like to know more about the Insured Tuition Payment Plan as it would apply to the students at:

Name of School  
or College \_\_\_\_\_

Address \_\_\_\_\_  
Please contact: \_\_\_\_\_

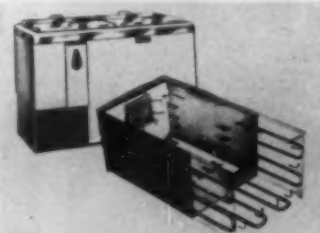
Name \_\_\_\_\_

Title \_\_\_\_\_

**RICHARD C. KNIGHT**  
**INSURED TUITION PAYMENT PLAN**  
112 WATER STREET  
BOSTON 9, MASSACHUSETTS

#### Bottle Coolers With Wet or Dry "Forced-Air"

Economical cost and operation are advantages offered in the new Beverage-Air "Forced-Air" Bottle Coolers. The wet or dry "Forced-Air" Coolers offer the benefits of standard "Wet or Dry" cooling, plus the rapid refrigeration and economy of "Forced-Air." The cooling fan in the new models operates only when the unit is running, assuring positive, even flow of refrigerated air throughout the entire storage areas for quick, low-cost cooling. Two large-capacity models are offered in the new line



with baked enamel front and ends, stainless steel tops and a choice of stainless steel slide or lift lids. **The Punxsutawney Company, Punxsutawney, Pa.**

For more details circle #41 on mailing card.

#### Acoustical Panels of Textured Aluminum

A new design has been added to the Simplex line of textured aluminum acoustical panels. Called the Ceilect panel, the unit is made of embossed aluminum sheet. The panels are square edged for almost invisible fine line joints. Ceilect panels come in lengths up to 36 inches, 12 inches wide, and are available in permanent aluminum finishes, mill-waxed and natural or color anodized. **Simplex Ceiling Corp., 552 W. 52nd St., New York 19.**

For more details circle #42 on mailing card.

#### Improved Composing Machine Features Long Life

Extensive engineering improvements on the Vari-Typer office composing machine have produced Model 160, offering increased ease of operation and longer machine life. The Linomatic "leading" device in the new model permits automatic insertion of printer's measure spaces between lines, giving professional looking results. The new pointer establishes precise alignment points for accuracy in preparing office forms on the machine. Signal lights and a bell aid the operator. The new model is larger and sturdier and is designed for years of superior performance. **The Vari-Typer Corp., Subsidiary of Addressograph-Multigraph Corp., 720 Frelinghuysen Ave., Newark 12, N.J.**

For more details circle #43 on mailing card.

(Continued on page 84)

#### monroe FOLDING BANQUET TABLES



Direct Prices  
and Discounts to  
Schools, Churches,  
Clubs, Lodges and  
All Organizations

COMPLETE CATALOG  
ON REQUEST

#### TRUCKS FOR FOLDING TABLES



Monroe TS (transport - storage) Trucks make handling and storing of Folding Tables easy and quick. Combination offers.

#### STEEL FOLDING CHAIRS



Monroe Steel Folding Chairs in attractive range of styles, sizes and prices. Excel in comfort, easy handling and durability. Also full line of non-folding chairs, desks and combinations for classroom, cafeteria and church school use.

#### PORTABLE PARTITIONS



Monroe's new movable partitions change idle space into useful areas. Smooth Masonite panels, tubular steel frames. Swivel pedestals, casters or glides.

**THE Monroe COMPANY**  
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**Parking Automatically...**  
**Without Attendants!**

PARCOA gives you exclusive "card-key" control for flexible, automatic private parking. Low in first cost, it pays for itself quickly because no attendants needed. Safe—requires minimum maintenance. Proved in scores of installations. Write for full details today!

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It takes only one  
**FORT HOWARD PAPER TOWEL**  
...because of controlled wet strength

Those big hands were dripping wet before he started drying them. Now they're completely dry. He did the whole job with just that one Fort Howard towel. And that means economy.

Typical of all Fort Howard towels. We call it "greater drying power".

It results from Controlled Wet Strength, which keeps wet towels strong, firm, soft. Stabilized Absorbency helps keep this drying power as they age.

And because they're Acid Free, they're gentle on the most delicate hands.

That's why Fort Howard Paper Towels dry more hands dryer than any other towels.

Select one of Fort Howard's 19 grades and folds for your washroom. Fort Howard Towels can fill any cabinet. Call your Fort Howard distributor for more information and samples. Or write Fort Howard Paper Company, Green Bay, Wisconsin.



**Fort Howard Paper Company**

Green Bay, Wisconsin

America's most complete line of paper towels, tissues and napkins

©Fort Howard Paper Company



*"Little things affect peoples'  
attitude toward you"*





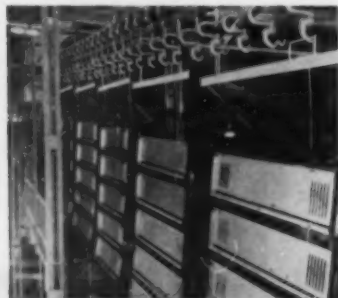
## What's New . . .

### Normandy Pattern in Trend Shape China

The practical trend shape in Syracuse China is now available in the new Normandy pattern. The basic square shape of Trend saves space on trays and tables and makes attractive place settings in minimum space. Trend shape china is also available in the Berkeley pattern. Syracuse China, Commercial Division, Syracuse, N.Y.

For more details circle #64 on mailing card.

### Bonderizing Process Increases Locker Life



Extra protection for longer useful life is now given the standard line of Berger Division steel lockers. Locker parts are put through the new bonderizing and

painting line prior to painting and assembly. It not only inhibits rust formation but the bonderized coating forms an extra anchor for enamel which helps to keep paint from peeling or lifting, even under the most severe conditions. Locker maintenance expense is thus reduced to a minimum. The extra protective coating is particularly important for lockers in or near shower rooms, swimming pools and other areas where moisture is a problem. Republic Steel Corp., Berger Div., Canton 5, Ohio.

For more details circle #65 on mailing card.

### Combination Lock Operates by "Clicks"

Lock Type 40, the Master Key Combination Lock, is a new model which operates merely by counting the number of "clicks." It helps solve the problem of locker security and permits safely-controlled inspection quickly and easily. The new lock has a slot at the bottom where a new-type of master key is inserted for emergencies and inspection. One key only is needed to open all combination locks in the series and the master key cannot be duplicated by any commercial key machine. The strong, rugged lock has a die cast case to protect all parts from water or moisture. C. L. Gougler Keyless Lock Co., Kent, Ohio.

For more details circle #66 on mailing card.

(Continued on page 86)

### Food Warmer Has Work Table Design

The new Thermotainer Electric Food Warmer now offers the convenience of work table top design. The unit is constructed of stainless steel with a new aluminized steel interior shell for greater heat reflectivity.

All compartments in the Type AA series can be removed for easy access to heating elements. Compartments are 22 inches wide by 9 inches high by 28 1/4 inches deep and hold 12 by 20 by 2-inch pans. Units are available with one, two,



three and four sections. Franklin Products Corp., 400 W. Madison St., Chicago 6.

For more details circle #67 on mailing card.

## THE PERFECT GIFT from a graduating class!

### AMERICA'S MOST BEAUTIFUL BELLS

Majestic, inspiring! The gift  
your college will always treasure



#### VERDIN ELECTRONIC BELLS

Glorious bell music at moderate cost. Automatic ringing of 168-hour programs. Hour Strike, chimes, Westminster Chimes, peals, carillons, or single bell, available.



#### VERDIN BRONZE BELLS

Majestic carillons, chimes, peals in genuine cast bronze bells! The ultimate in bell craftsmanship. Bells rung automatically, or easily played on keyboard. Week-long schedules.



#### VERDIN ELECTRIC BELL RINGERS

Your present bells used. Electric ringing fully automatic, or by manual control.



#### VERDIN TOWER CLOCKS

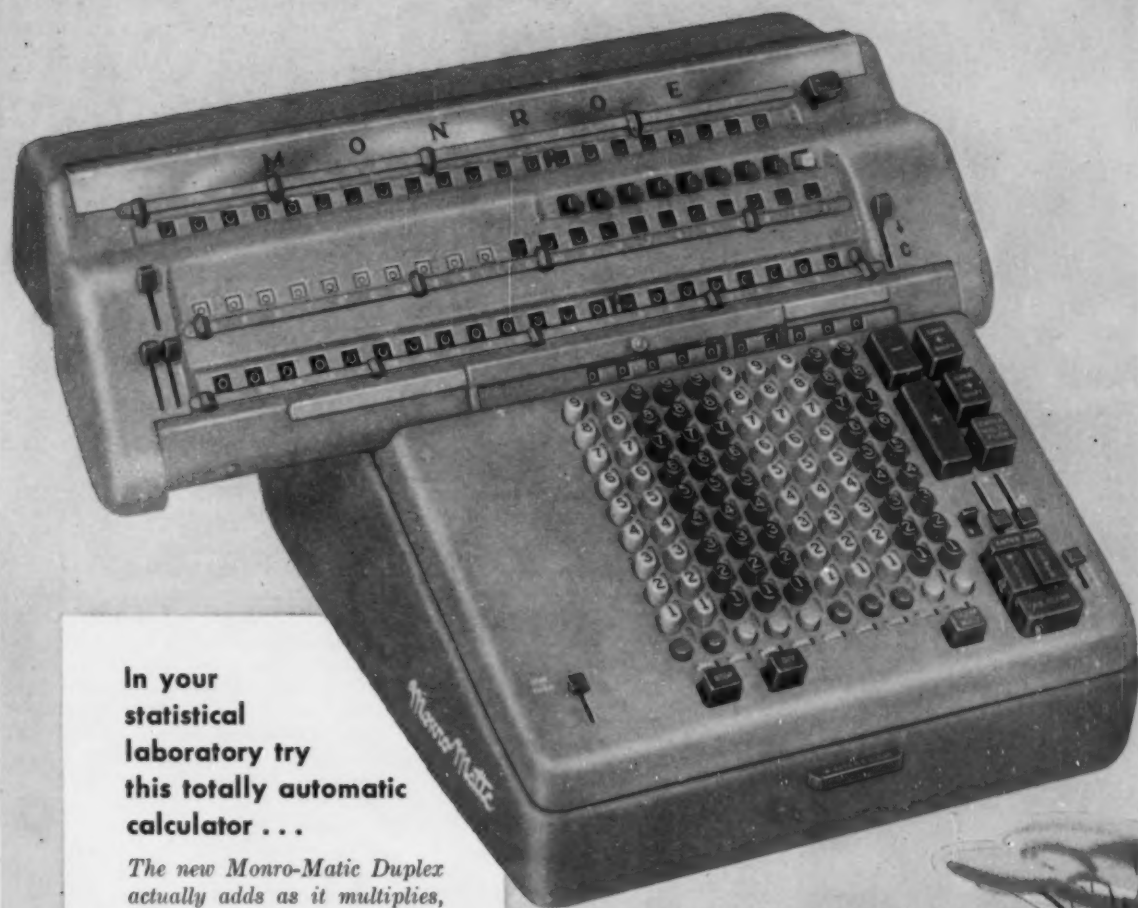
Precise in accuracy. Synchronous motor-driven unit. Beautiful illuminated dials from 3 ft. to 12 ft. diameter. Hour Strike optional. Old tower clocks modernized.

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statistical  
laboratory try  
this totally automatic  
calculator . . .**

*The new Monro-Matic Duplex  
actually adds as it multiplies,  
adds as it divides, stores and  
"remembers" intermediate results  
applying to the final answer.*



## **speed STUDENTS' figure-work**

The revolutionary *single* keyboard calculator speeds and simplifies all figure-work, with automatic squaring, automatic zeros and decimals. Push a key . . . automation takes over, puts the answer into the dials in split-second time.

Students in Agriculture, Business Administra-

tion, Chemistry, Engineering and other departments conserve hours of study time with the help of these newest, fastest Monro-Matic Calculators.

Why settle for less than Monro-Matic, the calculators with automation, the preferred investment, assurance against obsolescence for years.

See the MAN from **MONROE**  
for CALCULATING • ADDING • ACCOUNTING MACHINES



Mary Josita Hall, Clarke College, Dubuque, Iowa  
Architects: Barry & Kay, Chicago, Illinois

When only the finest  
is adequate ...

Section  
of Fleetlite  
Sliding Window  
showing exterior  
and interior  
sash, screen, and  
extruded  
aluminum frame.

Architects specify  
*Fleetlite Sliding Windows!*

Fleetlite windows offer unequaled economy and ease of maintenance. Self-storing double sash is safely cleaned from inside — provides added insulation to reduce heating and cooling costs. Windows are factory assembled and shipped ready for immediate installation.

Durability, Dependability and ease of operation make Fleetlite the preferred window for dormitories, hospitals and institutional buildings as well as the finest residences.



*Picture Window Beauty Plus Sliding Window Convenience!*

Combined Fleetlite picture and sliding windows make an attractive and practical unit, provide maximum light plus the benefits of controlled ventilation and double sash protection.

**Fleetlite**  
AMERICA'S "BEST" WINDOW

Please send complete information  
on Fleetlite:

- ☐ Double Horizontal Sliding Windows
- ☐ Double, Double Hung Windows
- ☐ Sliding Doors and Picture Walls
- ☐ Jalousie Windows and Doors

FLEET OF AMERICA, INC., 1963 Walden Ave., Buffalo 25, N. Y.

## What's New ...

### "Hot Pot" Beverage Server

A beverage server which nests conveniently in any style tea or coffee cup is offered in the "Hot Pot." It is designed to save space, prevent spillage and keep beverages hot in institutional



tray service. The "Hot Pot" is made in two styles, with sunken or knob cover, and is available in 26 colors. The Hall China Co., East Liverpool, Ohio.

For more details circle #68 on mailing card.

### Soft Drink Dispenser Combined with Ice-Maker

To assure a constant supply of crushed ice and to save steps in handling ice from a separate supply, a drink dispenser has been combined with an ice maker in one unit. The new Scotsman Drink Dispenser makes its own crushed ice and is capable of serving up to 24 iced drinks per minute, making it practical for installation in cafeterias, lunchrooms and other areas.

The ice serves three functions: as a pure crushed ice for serving cool drinks; as a ready supply of cooling ice for dispenser heads, and for cooling carbonated



and plain water. The unit is capable of producing 350 pounds of ice per day and storing up to 150 pounds in its stainless steel bin. When the bin is filled, an automatic control stops ice production. The unit accommodates two standard one-gallon fountain heads, two draft arms and has a built-in drain tray, counter space for volume serving and bulk storage compartment. It is equipped with a self-contained carbonator with capacity of 100 gallons per hour. American Gas Machine Co., 505 Front St., Albert Lea, Minn.

For more details circle #69 on mailing card.  
(Continued on page 88)

## **FREE Booklet:**

## **Describes the use of Closed Circuit Television**



### **Some of the Educational Topics:**

- Multi-Class Teaching
- Helping Teachers Get Better Results
- Equipment for TV Teaching Systems
- Educational Television Stations

(Two successful educational Stations are described)

### **Some of the Medical Topics:**

- TV for Medical Training and Education
- TV for Research, Dentistry and Surgery
- TV Microscopy
- Inter-Hospital Hook-Ups.

(The use of Television in a large medical center is described)

### **...In Education ...In Medicine**

Learn how RCA's specialized experience can be of assistance to you in planning television for specific applications... how RCA's extensive Systems Planning Department is available to integrate a wide variety of equipment into an installation that will suit your special requirements. Systems and equipment—both color and monochrome—are explained and illustrated, with diagrams and photographs. Mail coupon for your copy.



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CAMDEN, N.J.

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Radio Corporation of America  
Broadcast & Television Equipment  
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Dept. Y-34, Bldg. 15-1, Camden, N.J.

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INSTITUTION \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

## What's New . . .

### Sipco Safe Smoker in Jumbo Model

Designed especially for use in waiting rooms, lounges, offices and public areas in institutions, the new Sipco Deluxe Jumbo Model safe smoker provides a "dunking station" for cigarettes and cigars. Heavy duty cast aluminum with a smooth, brightly polished finish makes up the canister which is partly filled with water. A large hole at the top makes it easy to drop the cigar or cigarette, which does not smolder or emit further smoke or odors. The canister is easily emptied and replaced. Three models are available: the canister alone,



the canister and sign for mounting on walls, columns or posts, and a floor model. Standard Industrial Products Co., Dept. MH, 920 N. Garfield Ave., Peoria, Ill.

For more details circle #70 on mailing card.

### Wall-Hanging Fountain in Vitreous China

The Rockbrook is a new vitreous china wall-hanging drinking fountain



introduced by Kohler. The streamlined design features a wide apron, making the fountain easy to clean and modern in appearance. It has an eight-inch back for wall protection and measures 12 by 12 by 16 inches in size. The non-squirting, self-closing valve is adjustable with automatic volume regulator. Kohler Co., Kohler, Wis.

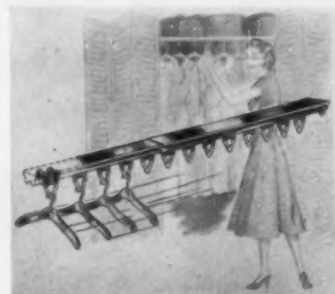
For more details circle #71 on mailing card.

sary to load the milk from the cases to the cabinet are saved and the stainless steel sliding doors permit easy self-service. The new cabinet is designed to keep the milk at just the right temperature for serving. Schaefer, Inc., 801 Washington Ave., Minneapolis 1, Minn.

For more details circle #72 on mailing card.

### Trolley Rod Fits Any Closet

The new Closet Trolley Rod is adjustable to any closet width and can be installed in a matter of minutes. "Rolla-



Trak" action moves clothes hangers along track spans on the closet rod by finger tip control, making everything in the closet readily accessible. Automatic Devices Co., 2121 S. 12th St., Allentown, Pa.

For more details circle #73 on mailing card.

### Milk Cooler Handles Filled Cases

Filled cases of bottled or carton milk can be placed in the new Model CMC-29 milk cooler. The time and effort neces-

(Continued on page 90)

## NEOPRENE GLOVES

•For Biological, Medical, Radioisotope and Pharmaceutical Research in Safety Enclosures. Arm length only. Bellows or Bucket type with 8" opening. Write: S. Blickman, Inc., 2810 Gregory Avenue, Weehawken, New Jersey.

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SAFETY ENCLOSURES

Look for this symbol of quality **Blickman-Built**

**QUALITY PLUS**  
**PUBLIC SEATING**  
**STYLE NEED NOT BE EXPENSIVE**

### FROM EVERY ANGLE

Style! Comfort! Safety! Durability! Price! These desirable features are all a part of Hampden's new concept of what public seating should be. All-steel folding chairs in new designs, new colors, and new fabrics can now be included in building or modernization plans. A high-quality chair with a flair for fashion at surprisingly low cost. For detailed information on the most complete line of adult and juvenile public seating, write today direct to:



Easthampton, Massachusetts  
Department HS-11

Distributors throughout the United States





Supply storage room for arts and crafts classes.



Ceramics teaching area.



Storage facilities for art pupils.



View of elementary arts and crafts room.



Opposite view of arts and crafts room for elementary students.

**FOR:** Clothing Laboratory  
• Laundry Areas • Sewing Areas • Foods Laboratory  
• Grooming Areas • Home Management Areas • Arts & Crafts Rooms • General Storage Areas

## IT'S **MUTSCHLER** FOR ARTS & CRAFTS IN WYANDOTTE



General view of crafts areas.

In the new Woodrow Wilson Junior High and Wm. H. Taft Elementary Schools of Wyandotte, Michigan, are the latest in modern arts and crafts teaching facilities . . . planned and installed under the guidance of a Mutschler sales engineer, who had the advantage of nation-wide experience to offer. If you plan to build or remodel school facilities, see a Mutschler sales engineer. His services cost absolutely nothing extra when you specify Mutschler . . . the finest in hard-wood cabinetwork for schools. Send coupon below.

### ARCHITECTS:

Woodrow Wilson School  
Swanson Associates  
Bloomfield Hills, Mich.

Wm. H. Taft School  
Bennett & Straight  
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### MUTSCHLER SALES OFFICE:

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Equipment Co.  
2300 Washtenaw Ave.  
Ann Arbor, Michigan



### MUTSCHLER BROTHERS COMPANY Dept. 1027-1 Nappanee, Indiana

Please send address of our nearest Mutschler sales engineer.

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school or firm \_\_\_\_\_  
address \_\_\_\_\_  
city, state \_\_\_\_\_

We plan to build \_\_\_\_\_; remodel \_\_\_\_\_.



# FEDERAL

## LOCK-TYPE MAIL BOXES

selected for  
modern new Y.M.C.A.



INSTALLATION AT NEW CENTRAL BRANCH, Y.M.C.A.  
MILWAUKEE, WISCONSIN

ARCHITECTS: GRASSOLD & JOHNSON, MILWAUKEE

CONSULTANTS: NATIONAL Y.M.C.A. BUILDING & FURNISHINGS  
SERVICE, NEW YORK

**Mail boxes with dual purpose key cylinders, keyed-alike for mail and room door add convenience plus attractive appearance.**

When registering, each guest of this modern new Milwaukee Y.M.C.A. receives a key that opens both his personal mail box and his room door—combining convenience with privacy. FEDERAL'S new service in providing dual purpose key arrangement with modern architectural style mail boxes eliminates search for lost keys, reduces key replacement requirements.

FEDERAL lock-type letter boxes are also available with combination lock, and can be obtained with bronze or chrome finish. All FEDERAL equipment is manufactured to specifications of the U.S. Post Office Department.

Write for New Bulletin on FEDERAL mail handling equipment.

For 50 years, your standard of quality.

THE **FEDERAL** EQUIPMENT COMPANY  
Carlisle, Penna.



## What's New . . .

### All-Purpose Voicewriter Is Versatile Dictating Unit

Dictation for every need as well as transcription can be accomplished with the new Edison All-Purpose Voicewriter. Different sets of accessories are simply plugged in for the various requirements. The all-purpose machine will record dictation at the desk, in conferences or while traveling, and the same machine with different attachments permits transcription of the dictation.



By plugging a small control box into the all-purpose unit and hooking it up with the dial telephone system of an institution, as many as 20 persons can dictate by remote control. A different control box permits dictation from Edison-made dictating phones. The versatile new unit provides dictating facilities for practically every need and changes for various uses are easily and quickly effected. **Thomas A. Edison Industries, McGraw-Edison Co., West Orange, N.J.**

For more details circle #74 on mailing card.

### Fiber Covers for Disposal Cans

Fiber covers have been designed for use with the Federal Fibre's line of heavy duty Fiberok cans to reduce the noise in handling disposal cans. "Quiet Covers" are constructed of specially vulcanized and hardened fiber and fit snugly over all size cans from 12 to 24 inch diameters. The covers are fitted with special leather handles and are available in brown or green. **Federal Fibre Corp., 3704 10th St., Long Island City 4, N.Y.**

For more details circle #75 on mailing card.


### Floor Space Reduced in Pre-Drying Tumbler


Improvements in the Purkett Pre-Drying Conditioning Tumbler include the re-location of the vent hoses in the newly designed doors. Less floor space is thus required for the new unit. Another improvement on the new model is an automatic door latch to hold the doors tightly shut, causing the heat and lint to escape through the vent hoses and not into the work room.

Other improvements which give superior quality conditioning for flat work and garments and result in time and labor savings, include an improved type of coupling on the cylinder drive; larger Sealmaster bearings and shafts for more strength, and positive condensate removal. **Purkett Mfg. Co., Joplin, Mo.**

For more details circle #76 on mailing card.

(Continued on page 92)

  
**Those who make a living feeding or housing know the value of interior design... by mandel**



Mandel Brothers Contract Division has long been management's source for the best in interior design, as well as functional, up-to-date furnishings. Mandel Men have helped many realize the most from building or remodeling budgets. When yours is a problem of making your premises more inviting, call a mandel man.

Experienced in Designing and Furnishing Complete Installations

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**mandel brothers**  
1 North State Street • Chicago 2

■ Albert B. Glus / Executive Manager  
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## The Helpful Jan-i-San...

**YOUNGS Multi-Use Utility Cart Saves Hours of Housekeeping Time**

Cut housekeeping costs through faster collection of trash and wastepaper. Wheel the Jan-i-San from room-to-room... toss the trash into the canvas bag (it holds 5 full bushels)... and roll on. 10" wheels roll easily through narrow doorways and over curbs. The Jan-i-San's sturdy steel platform supports the load. Dustpan, brushes, cloths, and a broom are held ready for use on handy brackets. And with no extra attachments you can do all the things shown below:



Gather Soiled Linen

Move Supplies

Janitor Service

Handle Rubbish

*Folds for storage, too!  
Write for our complete catalog.*

**THE PAUL O. YOUNG CO.**

LINE LEXINGTON, PENNA.

**NOW! Fingertip Portion Control**  
**Speeds up SELF-SERVICE MILK DISPENSING!**  
*Completely Dependable Performance Proven in Daily Use at Leading University Cafeterias!*

Fast service is vital to efficient mass feeding—so let Meterflo push-button self-service keep your lines moving! Several units have been in constant service for over three years at Brody Hall, Michigan State University. Each unit serves approximately 672,000 refrigerated glasses of fresh milk annually... an efficient, cost-cutting operation! Only one location in a campus-wide installation of 40 plus Meterflo units dispensing a total of over 2,000 gallons per day.

**Meterflo DISPENSERS**  
 Dept. CU. Niles, Michigan

• Fully automatic, refrigerated  
 • 1 to 32 ozs. portion control  
 • Utmost in sanitation  
 • Simplified handling cuts labor costs  
 • Pushbutton or coin-operated  
**Write today!**  
 Learn how to improve your university, hospital or industrial milk serving problem automatically  
 Photo of installation in Brody Hall, M.S.U.




**"The Lustre that Lingers"**

DOLCOWAX

The lustrous,  
 non-scurr FLOOR WAX  
 that outlasts them all

**DOLCOWAX** spreads swiftly on large floor areas where in addition to appearance, safety and durability are major considerations. Premium quality **DOLCOWAX** is a money saver because it gives non-scurr protection longer. **DOLCOWAX** second-coats beautifully without crawling. Easy to apply on linoleum, cork, asphalt tile, mastic, rubber, vinyl or sealed wood flooring.

For free sanitary survey of your premises consult your Dolge service man.

*Dependable*  
**DOLGE**  
 WESTPORT, CONNECTICUT



## What's New . . .

### Plastic Surfacing Is Stain Resistant

A new Armstrong material for wall and countertop has been introduced. Called Plastic Surfacing, the material is an all-vinyl composition with an Armstrong Hydrocord backing.

Plastic Surfacing resists stains from soaps, detergents, acids and alkalis and will not buckle under heat or crack from bending or stretching. It is completely moisture resistant on both sides. The material is easy to install and is available in rolls 30 and 42 inches wide. It has a softly textured design available in eight colors. **Armstrong Cork Company, Lancaster, Pa.**

For more details circle #77 on mailing card.

### Food Service Conveyor of All Stainless Steel

The new Lamson Pin-Type Food Service Conveyor is especially adaptable to installations where a number of horizontal turns are required. The new conveyor can carry up to twenty trays a minute without upsetting the contents. It has one-piece stainless steel construction which simplifies cleaning, and nylon wear strips ensure long, quiet operation without maintenance. Trays can be placed on the conveyor at any point. **Lamson Corporation, Syracuse 1, N.Y.**

For more details circle #78 on mailing card.

### Closed-Circuit TV Receivers for Classroom Teaching

The Tela Electronics Division of Meilink Steel Safe Company has been set up to produce closed-circuit television receivers designed specifically for classroom teaching. The new division will manufacture a forward-screen unit that projects a picture up to 12 by 15 feet on a movie-type screen, and a self-



contained rear-screen receiver for pictures on a 30 by 40-inch screen. In addition to closed-circuit television teaching, the Meilink equipment can project off-the-air pick-up programs. The units are on casters for easy mobility. A long-throw projector and a few cables can be used to convert them for projection of a special lecture or news event. **Tela Electronics Division, Meilink Steel Safe Co., Toledo 6, Ohio.**

For more details circle #79 on mailing card.

### Literature and Services

• **Central Vacuum Cleaning Systems** are the subject of a 20-minute color film recently released by The Spencer Turbine Co., 486 New Park Ave., Hartford, Conn. Featured in the film is a demonstration of the Spencer Vacuslot system for quick, dust-free cleaning of dry mops. For more details circle #80 on mailing card.

• A new **Color Chart and a Fabrication Manual for Micarta** are available from United States Plywood Corp., 55 W. 44th St., New York 36. The manual contains ten sections and presents detailed information on the application of Micarta. For more details circle #81 on mailing card.

• How vacuum applied pressure protects wood is explained in a new brochure entitled "Now Wood Gets A 'Vaccine,' Too." Available from Robbins Flooring Co., Reed City, Mich., the folder shows how wood impregnated with a preservative is protected against moisture, swelling, shrinking, grain raising, decay and termite and fungi attack. For more details circle #82 on mailing card.

• The complete line of **Cordley Electric Drinking Water Coolers** is described in Bulletin No. 4D prepared by Cordley & Hayes, 443 Fourth Ave., New York 16. For more details circle #83 on mailing card.

(Continued on page 94)

**durable**  
AND  
*Smart*  
**FURNITURE**



**Arm Chair**  
No. 420

Also available, a wide assortment of chairs and tables for dormitory, social room, dining room and other uses.

See your dealer or write us for our distributor's name.

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CHAIR COMPANY  
MANUFACTURERS  
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San Francisco — 558 Western Merchandise Mart, 1355 Market St.

**WATER SAVINGS**  
Up to **60%**  
**SHOWER HEAD**  
**AERATES SPRAY**  
**WORKS**  
**ON LOW**  
**PRESSURE**



No. 8-100

## "BUBBLE-STREAM" PUSHES COSTS DOWN!



The inexpensive Bubble-Stream shower head puts every drop of water to work: first to form an abundance of lathery suds quickly with lighter soap; then to flush away dirt and soap faster with less water. Shower time is reduced. Water is saved. Heat is saved. Hard water feels soft. Ball joint provides instant adjustment of spray angle.

**WRIGHTWAY**  
ENGINEERING CO.

Order through your supplier or direct.

339-41 W. 112th PL. • CHICAGO 28, ILLINOIS  
Mfrs. of "BUBBLE-STREAM" Aerating Devices



# WIRE GLASS *Overhead* IS BETTER ALL AROUND



Reynolds, Smith & Hills, Architects & Engineers—in association with  
Guy C. Fulton, (A. I. A.) architect.  
Contractor: Arthur Perry, Inc.  
Glazing: Pittsburgh Plate Glass Company.  
Mr. Frazier Rogers, Head of Dept., Agricultural Engineers,  
University of Florida, Gainesville, Florida.

## School Achieves High Levels of Illumination and Safety With Mississippi Diffusing Wire Glass Skylights

Because of the superior qualities of wire glass in skylights, the University of Florida Agricultural Engineering Building enjoys added safety as well as excellent daylighting. Mississippi Factrolite Wire Glass, installed in sawtooth skylights and Structural Corrugated Wire Glass in gable skylights, flood the interior with plenty of eye-easy, natural illumination, evenly diffused throughout the area. Occupants see better, work better, feel better, with plenty of comfortable light for all visual tasks without harsh glare or sharp shadows.

The inherent strength of Mississippi wire glass covers with protection . . . it will not shatter under impact . . . and glass will not burn. Mississippi Wire Glass, an Approved Fire Retardant (No. 32) tends to help bottle up and smother fires, prevent them from roaring into costly conflagrations.

When you build or remodel your school buildings, insist upon more daylight with safety. Specify Mississippi Wire Glass. Available at better distributors everywhere, in obscure and full vision patterns to meet your need.



Write today  
for free  
literature.  
Address Dept. 27.



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**GLASS COMPANY**  
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NEW YORK • CHICAGO • FULLERTON, CALIFORNIA

WORLD'S LARGEST MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS

## What's New . . .

# END NEEDLESS Overhead Expense IN WASHROOMS

with  
**Sani-Dri®**

Electric HAND and HAIR Dryers



### MODERN AUTOMATIC pushbutton way!

- Eliminates ALL Towel Costs
- Cuts Maintenance Expenses 85%
- Ends Litter...More Sanitary!

**Automatically**... new, faster-drying Sani-Dri Electric Hand Dryers save you money! No buying or storing of towels. You save maintenance overhead of filling empty towel cabinets... emptying containers.

**NEW EXCLUSIVE FEATURES**—New decorator styling—new quieter dynamically balanced blower and motor—new push bar switch with automatic shut-off. Sani-Dri is America's most modern electric dryer. Write today!

**SAVE up to  
\$300<sup>00</sup> or more  
per year**  
(Depending on Size and  
Number of Washrooms)

**OTHERS DO—Get Facts NOW!**

**GUARANTEED 2 FULL YEARS**



**Write Today for  
New Brochure**  
... SHOWS THE  
COMPLETE LINE

Dependable Since 1897  
**THE CHICAGO HARDWARE FOUNDRY CO.**  
31107 Commonwealth Ave. • North Chicago, Ill.

• "Youngs Illustrated Price List No. 57" describing utility carts, hand trucks and canvas bags is now available from The Paul O. Young Co., Line Lexington, Pa. The six-page guide lists more than 100 items, some of which include collector carts, custodial trucks, piano carriers, book trucks and various dolly trucks.

For more details circle #84 on mailing card.

• A General Utility Handbook giving detailed information on MicroRold 430 stainless steel sheet and strip is now available from Washington Steel Corp., Washington, Pa. The 28-page illustrated booklet describes physical properties and analysis, corrosion resistance, surface characteristics, fabrication, application, maintenance and availability of MicroRold 430.

For more details circle #85 on mailing card.

• Davidson Architectural Porcelain curtain wall panels and facing panels for remodeling or new construction are discussed in a new catalog. Available from Davidson Enamel Products, Inc., 1104 E. Kibby St., Lima, Ohio, the booklet illustrates various construction uses and gives complete specifications.

For more details circle #86 on mailing card.

• "The Harding-Williams Story" is the title of an attractively laid-out and printed brochure released by Harding-Williams, 16 N. Wabash Ave., Chicago 2. Telling the story of its food service operations available to schools, colleges and other institutions, the booklet gives the history of the organization, details on the type of food service offered, and other data on H-W food service management.

For more details circle #87 on mailing card.

• "Floor Designs" possible with Tile-Tex flooring are illustrated in color in a new brochure available from The Tile-Tex Div., The Flintkote Co., 1232 McKinley Ave., Chicago Heights, Ill. It contains many design suggestions plus examples of Tile-Tex custom-made inserts.

For more details circle #88 on mailing card.

• Unit Deck, a building product which eliminates need for joists, purlines, bridging and sheathing in application, is described in a new catalog. Released by Unit Structures, Inc., Peshtigo, Wis., the booklet includes outstanding characteristics, specifications, installation pictures and diagrams of the product.

For more details circle #89 on mailing card.

• Gleason Standard Casters for general, commercial and institutional use are discussed in Catalog No. 412-A prepared by Gleason Corp., 250 N. 12th St., Milwaukee 3, Wis. Information on how to select the correct caster for the individual job is included.

For more details circle #90 on mailing card.

(Continued on page 96)

## RESERVED PARKING

with

# WESTERN PARKING GATES



**Absolute Control**—Western Parking Gates are electrically operated and therefore are so flexible, so dependable, so easy to operate, they assure absolute control of college and university parking lots... either for Reserved Parking for Staff... or Revenue Parking for Visitors' Use.

**Keys, Electro-Cards, Coins, Tokens**—Introduction of electro-card system gives college and university officials a complete range of selection. Keys, electro-cards, coins, or tokens independently, or in combination, will operate the gates. Labor costs are entirely eliminated. Initial cost is low. Installation is easy. Almost no maintenance.

**Features**—Western, builder of more than 10,000 railroad and highway crossing gates, has engineered into the gates such exclusive and special features as the "Lot Full" sign, electric opening and closing treadles, double key controls for day and night parkers, electro-cards with period changes, push-button remote controls, automatic counters, and others.

**WRRS Parking Gates Will Be Shipped to Any College or University in the U.S. on**

**OPEN ACCOUNT**  
Subject to Complete  
Satisfaction of School  
Management.



Photos: L.S.U. Medical School, New Orleans, La.

### WRITE TODAY

For descriptive folder detailing information on the various parking lot control plans available for your application.

### SEND US

A brief description of your lot including dimensions, preferred locations for entrances and exits and a general idea of how you want to control parking. You will receive, without obligation, a parking plan and cost estimate.

6394



**WESTERN INDUSTRIES, INC.**

Electric Parking Gate Division

2416 South Ashland Ave., Chicago 8, Ill.  
IN CANADA: Cameron, Grant Inc., 465 St. John St., Montreal 1, Quebec

## THIS MONTH'S *Super Value*

BUILT  
OF  
FINEST  
BIRCH  
HARD-  
WOOD



*It's a  
Great  
space  
saving  
2-in-1  
unit!*

### #1068 1/2 CHEST DESK

This four-drawer chest-desk requires only 35" x 19" floor space. When its drop-leaf shelf is raised it looks like a drawer front. The shelf and the four drawers (2 large, 2 small) have recessed pulls. Top of chest is covered with grained plastic and has protective plastic edging. When order is sufficient, any finish can be supplied.

**EICHENLAUBS**  
Contract Furniture

3501 BUTLER ST., PITTSBURGH 1, PA.  
ESTABLISHED 1873

SEND FOR BULLETIN 1029

E-21

Institutions — Schools — Hospitals —  
Industrial Plants — Hotels — Caterers —  
Camps — Air Lines — Government — Civil  
Defense — Commercial Feeding Operations.

THE "AERVOID" CENTRAL KITCHEN  
SYSTEM HAS PROVED ITS WORTH  
IN ALL FIELDS OF MASS-FEEDING



AerVOIDs provide . . .  
Sanitary Vacuum Insulation -  
A positive Health Safeguard!

To-day's "Modern" trend toward  
centralization of food preparation is a  
milestone toward Economy, Better  
Quality and Higher Sanitary Standards.

Into this new picture nothing fits like  
AerVOID's Portable, Stainless-Steel,  
High-Vacuum Insulated, food, soup and  
liquid Carrier-Dispensers. AerVOIDs  
alone provide the proven quality and  
durability to survive under rough  
usage, spreading their cost over a  
long period of uninterrupted service.  
All AerVOID Equipment, so indicated  
in our specifications is "In Compliance"  
with the sanitary construction require-  
ments of the U. S. Public Health Service  
Ordinances and Codes.

Write for FREE Literature Kit CUB-01  
Our Consulting Service is also FREE

**VACUUM CAN COMPANY**

19 South Hoyne Avenue, Chicago 12, Illinois

**AERVOID** Vacuum Insulated  
Hot or Cold Food, Soup, Milk,  
Coffee and Beverage Carrier-Dispensers



design DNY-120. w. 23", d. 23", h. 32"

**UNEXCELLED**

*for simplicity,  
comfort  
and strength*



design DNY-119.  
w. 10", d. 23" h. 32"

127 years  
makers of  
chairs and  
tables for  
public use.

Write us about your seating  
needs. We will send  
appropriate illustrated material.

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**SHOWROOMS:** NEW YORK, CHICAGO, DALLAS, LOS ANGELES,  
MIAMI, STATESVILLE, N. C.



## What's New . . .

• The complete line of **Haws Drinking Fountains and Electric Coolers** is described in **Catalog 1957** available from Haws Drinking Faucet Co., 4th & Page Sts., Berkeley 10, Calif. The booklet also contains information on faucets, accessories and parts and Kramer flush valves, as well as rough-in dimensions and architect's specifications.

For more details circle #91 on mailing card.

• Institutions plagued with frequent window breakage will be interested in a new booklet, **PL-51, "Plexiglas Replacement Glazing,"** available from Rohm & Haas Co., Plastics Dept., Washington Square, Philadelphia 5, Pa. Information on sheet sizes and thicknesses to be used is included and the advantages and properties of Plexiglas related to glazing, including resistance to breakage and chemicals, outdoor stability, thermal expansion and other factors, are discussed.

For more details circle #92 on mailing card.

• "ThermMcCold Hot and Cold Food Banks" are the subject of a new booklet released by McCall Refrigerator Corp., Hudson, N.Y. The principle of this type of food bank in cafeteria type food service is discussed along with a case history. Pass-Thru and wall type models are described.

For more details circle #93 on mailing card.

• A descriptive catalog on the **AMF Mobile Lowerator Self-Leveling Dispenser System** is now available from the American Machine & Foundry Co., Lowerator Division, 261 Madison Ave., New York 16. The 10-page brochure illustrates and describes the system and includes many photographs of actual installations, showing how Lowerators are filled at the dishwasher and wheeled directly to the desired location for automatic service-level dispensing.

For more details circle #94 on mailing card.

• Information on **O & S Fuel Burning Systems** using gas, oil or a combination is discussed in a new bulletin issued by Orr & Sembower, Inc., Morgantown Rd., Reading, Pa. Elements comprising the system and actual installations are also discussed along with technical data.

For more details circle #95 on mailing card.

• A new bulletin designed to help administrators without a degree in electrical engineering prepare their institution for closed-circuit television has been prepared by Jerrold Electronics Corp., 23rd and Chestnut Sts., Philadelphia 3, Pa. Entitled "An Aid to Help You Plan Your Educational TV System," the booklet gives a non-technical step-by-step description of a school television distribution system.

For more details circle #96 on mailing card.

• The **University Training Reactor**, designed to meet the needs of nuclear engineering curricula, is described in a new brochure released by American-Standard, Atomic Energy Div., Redwood City, Calif. The UTR Brochure contains complete details and specifications of the reactor and shows a typical layout for arrangement of facilities.

For more details circle #97 on mailing card.

## Suppliers' News

**The Harwald Company**, 1245 Chicago Ave., Evanston, Ill., manufacturer of Inspect-O-Film film inspection machines and film handling products for libraries, laboratories and television, announces the opening of a new plant. The new quarters were made necessary by company expansion and the recent acquisition of the Movie-Mite projector.

**The Hospital Specialty Co.**, 1991 E. 66th St., Cleveland 3, Ohio, specialist in sanitary protection service, is now national distributor of individually packaged Kotex sanitary napkins and coin-operated dispensers, according to an announcement from **Kimberly-Clark Corporation**, Neenah, Wis., manufacturer of Kotex. The new distributor will offer six new models of Kotex vending machines, varying in size and capacity for needs of schools, colleges and other institutional users.

# Cut Maintenance \$600

yearly per unit with

# WORLD

## Hand Dryers

*Best By Test!*  
*Factory Guaranteed!*

**THOUGHTFUL BUYERS USE WORLD!**

Marshall Field & Co.  
Northwestern University  
Chrysler Corp.  
Union Pacific Railroad  
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Frick Building  
U. S. Army  
U. S. Navy  
Gimbel Brothers  
Howard Johnson's  
Alton, Ill.  
Schools  
Pick Hotels  
Guif Oil

Each high speed **WORLD** Hand Dryer can save up to \$600 per year on paper and maintenance . . . dry hands fast as towels . . . keep wash-room clean and sanitary.

Prove it to yourself under our **FREE** trial offer! Full details on request.



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Gentlemen: Without obligation send me copies of letters from users, also folder of facts including cost-saving figures and full details on your **FREE-TRIAL** offer.

My name \_\_\_\_\_  
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City \_\_\_\_\_ State \_\_\_\_\_

**MAIL THIS COUPON NOW!**



## Here's a desk for ALL sizes!



No. 445 High-School and College Desk

The "445" is the one desk that handles the "big ones," "little ones," and "normal size" students as well—in Grades 7 through 12, and college. Roomy, steel-pylon construction and variable heights of top and seat are the secrets. Send for our newest full-line catalog today.



Grand Rapids 2, Michigan

**WORLD'S LEADER IN PUBLIC SEATING**



**TO REQUEST PRODUCT INFORMATION  
FOLD THIS FLAP OUT  
AND USE THESE CARDS**

*(We pay the postage)*



*The two cards below are detachable and are addressed to us. With this flap folded out you can turn through the magazine for the items on which you want further information.*



*When, in either an advertisement or "What's New" you locate the product, turn to the index to advertisements on the preceding page or to the index of "What's New" items (right) where you will find the key number for the item. Items advertised are listed alphabetically by manufacturer. "What's New" items are in Key Number order. Circle the corresponding key number on the card below for each item in which you are interested. The second card is for the use of someone else who may also want product data.*



*Detach and mail — no postage required.*



FIRST CLASS  
CHICAGO, ILL.  
PERMIT NO. 136  
SEC. 34.9 P. L. & R.

**BUSINESS REPLY CARD**

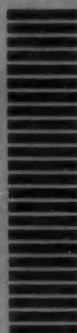
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PERMIT NO. 136  
SEC. 34.9 P. L. & R.

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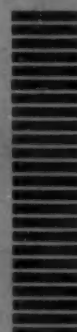
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CHICAGO 11, ILLINOIS



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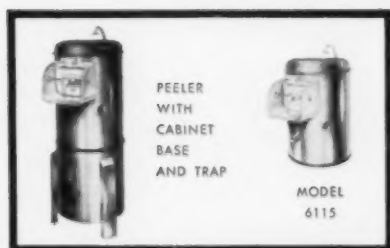
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abrasive-  
least abusive!  
-and no plumbing problems!**



**Model 6115 Stainless Steel Portable Peeler.** *Finish*—satin-finished stainless steel body, gray plastic cover, cast aluminum door, door handle and chute. *Capacity*—15-20 lbs. in 1-3 mins. Stainless steel cabinet base and trap accessory converts unit to floor machine.

#### **HOBART PRODUCTS**

DISHWASHERS • DISH SCRAPPERS • GLASSWASHERS  
DISPOSERS • PEELERS • FOOD CUTTERS • MIXERS  
MEAT CHOPPERS • MEAT SAWS • SCALES  
TENDERIZERS • FOOD SLICERS • COFFEE MILLS

*Place It* where it will drain—*Plug It* into an outlet—*Push* the fill hose onto a faucet—and you're in the peeling business anywhere. No wonder the great Hobart Portable Peeler is a kitchen sensation!

With all its portable convenience, you get the same unequalled peeling performance as that of the Hobart cabinet models—and that's tops! The exclusive Hobart designed abrasive disc (second in hardness only to diamonds) combines in action with the coordinated non-abrasive ribbed hopper sides to give you *controlled* peeling at its finest. Minimum waste of vitamin-rich areas—all shapes peeled skin-deep only, with no flats or bruising—and quick!

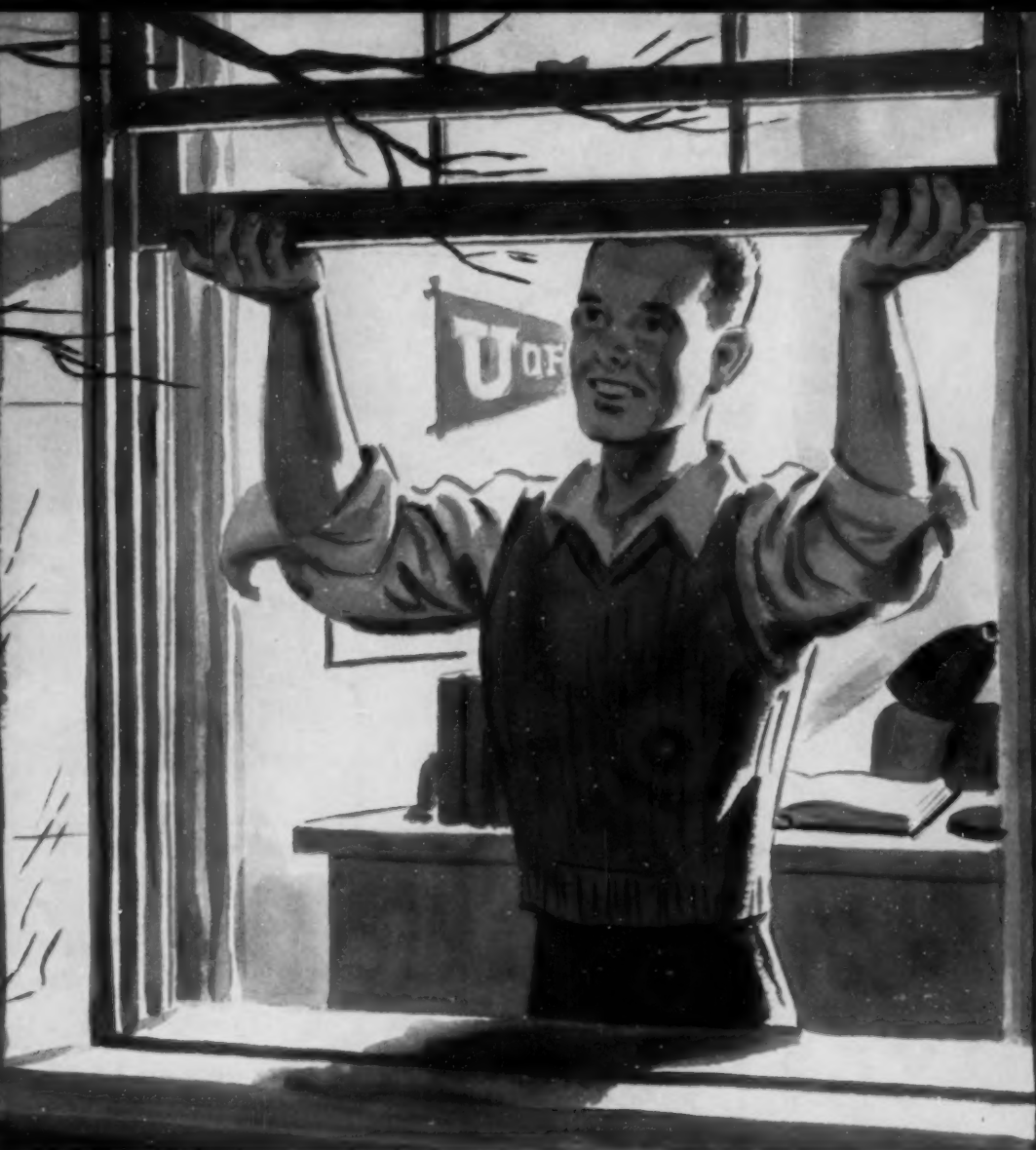
Side-abrasive design was never like this in performance—or in the matter of cleaning, either. Disc slips out in a second, and whole interior cleans in a hurry.

See Hobart Peelers (cabinet or bench models), with exclusive action and plus-powered motors today. See the whole Hobart line. There's nothing like it for scope of products—choice of models—and real service . . . The Hobart Manufacturing Company, Troy, Ohio

# **Hobart** machines



The World's Largest Manufacturer of Food,  
Kitchen and Dishwashing Machines



## *The Campus Spendthrift . . .* **and you're picking up the tab!**

Schools of all sizes are plagued by this fellow, yet he can't be recognized on the campus. He may be the robust football hero or the shy little freshman. But, as the "campus spendthrift," he's costing you countless dollars each year in unnecessary extra heating expense with his "open window" policy.

You can put a stop to this careless spending of your fuel dollars by eliminating dormitory room overheating. And, here's the practical solution to this problem—a Johnson Pneumatic Temperature Control System with *individual room* control.

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Don't allow the "campus spendthrifts" to skyrocket your dormitory heating costs. Let an engineer from a nearby Johnson branch office show you, your consulting engineer, staff engineer or architect how a Johnson Pneumatic Control System can solve your dormitory temperature control problems, now!

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